# **WEST Search History**

Hide Items Restore Clear Cancel

DATE: Tuesday, November 23, 2004

Hide?	<u>Set</u> Name	Query	<u>Hit</u> Count
	DB=	PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ	
	L14	L12 AND T-cell epitope	58
	L13	L12 AND T-cell epitope	58
	L12	L11 AND B-cell epitope	74
	L11	L10 AND T-cell	1196
	L10	L9 AND B-cell	1498
	L9	L8 AND epitope	5670
	L8	(PEI OR kevlar OR PMMA OR PTFE OR PLGA OR PGA OR PLA OR polyorthoesters)	392612
	L7	L6 AND helper T cell epitope	28
	L6	L5 AND T-cell epitope	255
	L5	L4 AND b-cell epitope	396
	L4	L3 AND T-cell	5462
	L3	L2 AND B-cell	9289
	L2	L1 AND epitope	30580
	L1	(acetan OR amyulopectin OR gum agar-agar OR agarose OR alginate OR gum arabic OR carregeenan OR cellulose OR cyclodetrins OR detran OR furcellaran OR galactomannan OR gelatin OR ghatti OR glucan OR glycogen OR guar OR karaya OR konjac OR locust bean gum OR mannan OR pectin OR psyllium OR pullan OR starch OR tamarine OR tragacanth OR xanthan OR xylan OR xyloglucan)	684247

END OF SEARCH HISTORY

# **Hit List**

Clear Generate Collection Print Fwd Refs Bkwd Refs Generate OACS

# Search Results - Record(s) 1 through 28 of 28 returned.

# ☐ 1. Document ID: US 20030232324 A1

# Using default format because multiple data bases are involved.

L7: Entry 1 of 28

File: PGPB

Dec 18, 2003

Dec 4, 2003

PGPUB-DOCUMENT-NUMBER: 20030232324

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030232324 A1

TITLE: Chimeric alphavirus replicon particles

PUBLICATION-DATE: December 18, 2003

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47 Polo, John M. Hayward CA US Perri, Silvia Castro Valley CA US Thudium, Kent Oakland CA US Tang, Zequn San Ramon CA US

US-CL-CURRENT:  $\underline{435/5}$ ;  $\underline{435/235.1}$ ,  $\underline{435/325}$ ,  $\underline{435/456}$ ,  $\underline{435/69.3}$ ,  $\underline{536/23.72}$ 

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File: PGPB

PGPUB-DOCUMENT-NUMBER: 20030223964

PGPUB-FILING-TYPE: new

L7: Entry 2 of 28

DOCUMENT-IDENTIFIER: US 20030223964 A1

TITLE: Expression of HIV polypeptides and production of virus-like particles

PUBLICATION-DATE: December 4, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Barnett, Susan	San Francisco	CA	US	
Megede, Jan Zur	San Francisco	CA	US	
Lian, Ying	Vallejo	CA	US	
Hartog, Karin	Piedmont	CA	US	
Liu, Hong	Castro Valley	CA	US	
Greer, Catherine	Oakland	CA	US	
Selby, Mark	Berkeley	CA	US	

US-CL-CURRENT: 424/93.2; 435/235.1, 435/325, 435/456

#### ABSTRACT:

The present invention relates to the efficient expression of HIV polypeptides in a variety of cell types, including, but not limited to, mammalian, insect, and plant cells. Synthetic expression cassettes encoding the HIV Gag-containing polypeptides are described, as are uses of the expression cassettes in applications including DNA immunization, generation of packaging cell lines, and production of Env-, tat- or Gag-containing proteins. The invention provides methods of producing Virus-Like Particles (VLPs), as well as, uses of the VLPs including, but not limited to, vehicles for the presentation of antigens and stimulation of immune response in subjects to whom the VLPs are administered.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KOMC	Draw, Des
											***********	

File: PGPB

Dec 4, 2003

PGPUB-DOCUMENT-NUMBER: 20030223961

PGPUB-FILING-TYPE: new

L7: Entry 3 of 28

DOCUMENT-IDENTIFIER: US 20030223961 A1

TITLE: Polynucleotides encoding antigenic HIV type C polypeptides, polypeptides and uses thereof

PUBLICATION-DATE: December 4, 2003

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47 Megede, Jan Zur San Francisco CA US Barnett, Susan W. San Francisco CA US Engelbrecht, Susan Tygerberg zARensburg, Estrelita Janse van Tygerberg ZA

US-CL-CURRENT: 424/93.2; 435/320.1, 435/456, 435/458, 536/23.2

#### ABSTRACT:

The present invention relates to polynucleotides encoding immunogenic HIV type C polypeptides. Uses of the polynucleotides in applications including DNA immunization, generation of packaging cell lines, and production of HIV Type C proteins are also described.

Full Title Citation Front Review Classification Da	ite Reference	Sequences	Attachmenta	Claims	FORME	Draw Des
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☐ 4. Document ID: US 20030208792 A	l					
L7: Entry 4 of 28	File:	PGPB		No	v 6,	2003

PGPUB-DOCUMENT-NUMBER: 20030208792

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030208792 A1

TITLE: Method for using tobacco mosaic virus to overproduce peptides and proteins

PUBLICATION-DATE: November 6, 2003

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Fitchen, John H. La Jolla CA US Beachy, Roger N. St. Louis MO US

US-CL-CURRENT: <u>8</u>00/280; 800/288

#### ABSTRACT:

The invention describes compositions and methods of use in which an infectious modified Tobacco Mosaic Virus (TMV) virion comprising a coat protein (CP) or a movement protein (MP) gene is replaced with a nuclear inclusion protease (NIa) expression cassette for the expression of a heterologous peptide in a tobacco mosaic virus (TMV) host plant.

Full	Title				Classification		Attachments	Claims	Draw, Desc
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File: PGPB

### ☐ 5. Document ID: US 20030148262 A1

PGPUB-DOCUMENT-NUMBER: 20030148262

PGPUB-FILING-TYPE: new

L7: Entry 5 of 28

DOCUMENT-IDENTIFIER: US 20030148262 A1

TITLE: Chimeric alphavirus replicon particles

PUBLICATION-DATE: August 7, 2003

#### INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Polo, John M.	Hayward	CA	US	
Perri, Silvia	Castro Valley	CA	US	•
Thudium, Kent	Oakland	CA	US	

US-CL-CURRENT: 435/5; 424/192.1, 424/199.1, 424/204.1, 435/69.1, 435/69.7, 435/91.1,

530/300

# ABSTRACT:

Chimeric alphaviruses and alphavirus replicon particles are provided including methods of making and using same. Specifically, alphavirus particles are provided having nucleic acid molecules derived from one or more alphaviruses and structural proteins (capsid and/or envelope) from at least two or more alphaviruses. Methods of making, using, and therapeutic preparations containing the chimeric alphavirus particle, are disclosed.

Aug 7, 2003

# ☐ 6. Document ID: US 20030104067 A1

L7: Entry 6 of 28

File: PGPB

Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030104067

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030104067 A1

TITLE: Method of obtaining cellular immune responses from proteins

PUBLICATION-DATE: June 5, 2003

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

O' Hagan, Derek Berkeley CA US Singh, Manmohan Hercules CA US

US-CL-CURRENT: 424/490; 424/186.1, 424/188.1, 424/189.1

#### ABSTRACT:

A method for producing a cellular immune response in a vertebrate subject comprising administering to the vertebrate subject a vaccine composition comprising a protein particle antigen and a pharmaceutically acceptable excipient is disclosed.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw, Desi
										***************************************	***************************************	·····

# ☐ 7. Document ID: US 6787637 B1

L7: Entry 7 of 28

File: USPT

Sep 7, 2004

US-PAT-NO: 6787637

DOCUMENT-IDENTIFIER: US 6787637 B1

TITLE: N-Terminal amyloid-.beta. antibodies

DATE-ISSUED: September 7, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Schenk; Dale B. Burlingame CA

US-CL-CURRENT: 530/387.1; 424/130.1, 530/300, 530/350

#### ABSTRACT:

The invention provides improved agents and methods for treatment of diseases associated with amyloid deposits of A.beta. in the brain of a patient Such methods entail administering agents that induce a beneficial immunogenic response against the amyloid deposit. The methods are useful for prophylactic and therapeutic treatment of Alzheimer's disease. Preferred including N-terminal fragments of A.beta. and

antibodies binding to the same.

7 Claims, 25 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 18

Full | Title | Citation | Front | Review | Classification | Date | Reference | SUBSTRUCTION | SUBSTRUCTION | Claims | KNNC | Draw, Desi

### □ 8. Document ID: US 6761888 B1

L7: Entry 8 of 28

File: USPT

Jul 13, 2004

US-PAT-NO: 6761888

DOCUMENT-IDENTIFIER: US 6761888 B1

TITLE: Passive immunization treatment of Alzheimer's disease

DATE-ISSUED: July 13, 2004

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Schenk; Dale B.

Burlingame

CA

US-CL-CURRENT:  $\underline{424}/\underline{130.1}$ ;  $\underline{530}/\underline{300}$ ,  $\underline{530}/\underline{350}$ ,  $\underline{530}/\underline{387.1}$ 

#### ABSTRACT:

The invention provides improved agents and methods for treatment of diseases associated with amyloid deposits of A.beta. in the brain of a patient. Such methods entail administering agents that induce a beneficial immunogenic response against the amyloid deposit. The methods are useful for prophylactic and therapeutic treatment of Alzheimer's disease. Preferred agents including N-terminal fragments of A.beta. and antibodies binding to the same.

36 Claims, 25 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 18

Full Title Citation Front Review Classification Date Reference Williams Claims KMC Draw, Desc

☐ 9. Document ID: US 6750324 B1

L7: Entry 9 of 28

File: USPT

Jun 15, 2004

US-PAT-NO: 6750324

DOCUMENT-IDENTIFIER: US 6750324 B1

TITLE: Humanized and chimeric N-terminal amyloid beta-antibodies

DATE-ISSUED: June 15, 2004

INVENTOR-INFORMATION:

NAME

CITY

STATE ZIP CODE

COUNTRY

Schenk; Dale B.

Burlingame

CA

Bard; Frederique

Pacifica

CA

Yednock; Theodore

Forest Knolls

CA

US-CL-CURRENT: 530/387.1; 424/130.1, 530/300, 530/350

#### ABSTRACT:

The invention provides improved agents and methods for treatment of diseases associated with amyloid deposits of A.beta. in the brain of a patient Such methods entail administering agents that induce a beneficial immunogenic response against the amyloid deposit The methods are useful for prophylactic and therapeutic treatment of Alzheimer's disease. Preferred agents including N-terminal fragments of A.beta. and antibodies binding to the same.

12 Claims, 25 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 18

Full	Title	Citation F	ront	Review	Classification	Date	Reference		Claims	KiMC	Draww Desc
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	10.	Documer	nt ID:	US 6	743427 B1						
L7: E	ntrv	10 of 2	8				File:	USPT	.T11	n 1.	2004

US-PAT-NO: 6743427

DOCUMENT-IDENTIFIER: US 6743427 B1

TITLE: Prevention and treatment of amyloidogenic disease

DATE-ISSUED: June 1, 2004

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Schenk; Dale B.

Burlingame

CA

US-CL-CURRENT: 424/130.1; 530/300, 530/350, 530/387.1

#### ABSTRACT:

The invention provides improved agents and methods for treatment of diseases associated with amyloid deposits of A.beta. in the brain of a patient. Such methods entail administering agents that induce a beneficial immunogenic response against the amyloid deposit. The methods are useful for prophylactic and therapeutic treatment of Alzheimer's disease. Preferred agents including N-terminal fragments of A.beta. and antibodies binding to the same.

19 Claims, 0 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 18

Full Title Citation Front Review Classification Date Reference Communication Draw, Designation Communication Draw, Designation Communication C

# ☐ 11. Document ID: US 6602705 B1

L7: Entry 11 of 28

File: USPT

Aug 5, 2003

US-PAT-NO: 6602705

DOCUMENT-IDENTIFIER: US 6602705 B1

TITLE: Expression of HIV polypeptides and production of virus-like particles

DATE-ISSUED: August 5, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Barnett; Susan W. San Francisco CA Megede; Jan zur San Francisco CA Greer; Catherine Oakland CA Selby; Mark San Francisco CA

US-CL-CURRENT: 435/320.1; 424/184.1, 424/185.1, 424/187.1, 424/188.1, 424/207.1,

<u>536/23.1</u>, <u>53</u>6/23.72

#### ABSTRACT:

The present invention relates to the efficient expression of HIV polypeptides in a variety of cell types, including, but not limited to, mammalian, insect, and plant cells. Synthetic expression cassettes encoding the HIV Gag-containing polypeptides are described, as are uses of the expression cassettes in applications including DNA immunization, generation of packaging cell lines, and production of Env-, tat- or Gag-containing proteins. The invention provides methods of producing Virus-Like Particles (VLPs), as well as, uses of the VLPs including, but not limited to, vehicles for the presentation of antigens and stimulation of immune response in subjects to whom the VLPs are administered.

39 Claims, 155 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 131

aw. Desi

#### ☐ 12. Document ID: US 6576757 B1

L7: Entry 12 of 28

File: USPT

Jun 10, 2003

US-PAT-NO: 6576757

DOCUMENT-IDENTIFIER: US 6576757 B1

\*\* See image for <u>Certificate</u> of <u>Correction</u> \*\*

TITLE: Polynucleotides encoding flavivirus and alphavirus multivalent antigenic polypeptides

DATE-ISSUED: June 10, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Punnonen; Juha Palo Alto CA Bass; Steven H.

Hillsborough

CA

Whalen; Robert Gerald

Paris

Howard; Russell

Los Altos Hills

CA

Stemmer; Willem P. C.

Los Gatos

CA

US-CL-CURRENT: 536/23.72; 424/184.1, 424/204.1, 424/218.1, 424/228.1, 536/23.1

#### ABSTRACT:

This invention is directed to antigen library immunization, which provides methods for obtaining antigens having improved properties for therapeutic and other uses. The methods are useful for obtaining improved antigens that can induce an immune response against pathogens, cancer, and other conditions, as well as antigens that are effective in modulating allergy, inflammatory and autoimmune diseases.

54 Claims, 27 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 23

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# ☐ 13. Document ID: US 6569435 B1

L7: Entry 13 of 28

File: USPT

May 27, 2003

FR

US-PAT-NO: 6569435

DOCUMENT-IDENTIFIER: US 6569435 B1

TITLE: Flavivirus and alphavirus recombinant antigen libraries

DATE-ISSUED: May 27, 2003

#### INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Punnonen; Juha Palo Alto CA Bass; Steven H. Hillsborough CA Whalen; Robert Gerald Paris FR Howard; Russell Los Altos Hills CA Stemmer; Willem P. C. Los Gatos CA

US-CL-CURRENT: 424/202.1; 424/204.1, 424/234.1, 424/236.1, 424/274.1, 435/320.1, 435/6, 514/44

#### ABSTRACT:

This invention is directed to antigen library immunization, which provides methods for obtaining antigens having improved properties for therapeutic and other uses. The methods are useful for obtaining improved antigens that can induce an immune response against pathogens, cancer, and other conditions, as well as antigens that are effective in modulating allergy, inflammatory and autoimmune diseases.

51 Claims, 27 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 23

# ☐ 14. Document ID: US 6541011 B2

L7: Entry 14 of 28

File: USPT

Apr 1, 2003

US-PAT-NO: 6541011

DOCUMENT-IDENTIFIER: US 6541011 B2

TITLE: Antigen library immunization

DATE-ISSUED: April 1, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Punnonen; Juha Palo Alto CA Bass; Steven H. Hillsborough CA

Whalen; Robert Gerald Paris FR

Howard; Russell Los Altos Hills CA Stemmer; Willem P. C. Los Gatos CA

US-CL-CURRENT: 424/204.1; 424/218.1, 530/300, 530/350

#### ABSTRACT:

This invention is directed to antigen library immunization, which provides methods for obtaining antigens having improved properties for therapeutic and other uses. The methods are useful for obtaining improved antigens that can induce an immune response against pathogens, cancer, and other conditions, as well as antigens that are effective in modulating allergy, inflammatory and autoimmune diseases.

47 Claims, 28 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 23

	*********	97177777 V							
Full	Titl∈	Citation	Frent	Review	Classification	Date	Reference	Claims	KMMC - Draw, Desi

# ☐ 15. Document ID: US 6534064 B1

L7: Entry 15 of 28

File: USPT

Mar 18, 2003

US-PAT-NO: 6534064

DOCUMENT-IDENTIFIER: US 6534064 B1

TITLE: Stabilized protein particles for inducing cellular immune responses

DATE-ISSUED: March 18, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

O'Hagan; Derek Berkeley CA Singh; Manmohan Herculės CA US-CL-CURRENT: <u>424/205.1</u>; <u>424/199.1</u>, <u>424/204.1</u>, <u>424/207.1</u>, <u>424/208.1</u>, <u>424/225.1</u>, <u>424/228.1</u>, <u>424/229.1</u>, <u>424/70.14</u>, <u>424/70.16</u>, <u>424/9.34</u>, <u>435/8</u>, <u>518/726</u>

#### ABSTRACT:

A method for producing a cellular immune response in a vertebrate subject comprising administering to the vertebrate subject a vaccine composition comprising a protein particle antigen and a pharmaceutically acceptable excipient is disclosed.

49 Claims, 2 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 2

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims		Draw, Desi
	16.	Docume	ent ID	); US 6:	521746 B1	•••••		······································	F et al.	······································		
L7: E	Entry	16 of 2	28				File:	USPT		Feb	18,	2003

US-PAT-NO: 6521746

DOCUMENT-IDENTIFIER: US 6521746 B1

TITLE: Polynucleotides encoding LKT 111

DATE-ISSUED: February 18, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Potter; Andrew A. Saskatoon CA
Manns; John G. Saskatoon CA

US-CL-CURRENT: <u>536/23.1</u>; <u>435/252.3</u>, <u>435/320.1</u>, <u>435/455</u>, <u>435/69.1</u>, <u>435/69.3</u>, <u>435/69.7</u>, <u>536/23.4</u>, <u>536/23.7</u>

#### ABSTRACT:

New immunological carrier systems, DNA encoding the same, and the use of these systems, are disclosed. The carrier systems include chimeric proteins which include a leukotoxin polypeptide fused to one or more selected GnRH multimers which comprise at least one repeating GnRH decapeptide sequence, or at least one repeating unit of a sequence corresponding to at least one epitope of a selected GnRH molecule. Under the invention, the selected GnRH sequences may all be the same, or may correspond to different derivatives, analogues, variants or epitopes of GnRH so long as the GnRH sequences are capable of eliciting an immune response. The leukotoxin functions to increase the immunogenicity of the GnRH multimers fused thereto.

20 Claims, 42 Drawing figures Exemplary Claim Number: 1
Number of Drawing Sheets: 37

Full	Title	Citation	Front	Review	Classification	Date	Reference		Draw, Des

☐ 17. Document ID: US 6503732 B1

L7: Entry 17 of 28

File: USPT

Jan 7, 2003

US-PAT-NO: 6503732

DOCUMENT-IDENTIFIER: US 6503732 B1

TITLE: Method for using tobacco mosaic virus to overproduce peptides and proteins

DATE-ISSUED: January 7, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Fitchen; John H. La Jolla CA Beachy; Roger N. La Jolla CA

US-CL-CURRENT: 435/69.1; 435/320.1, 536/23.1, 536/24.1, 800/280, 800/298

#### ABSTRACT:

The invention describes compositions and methods of use in which an infectious modified Tobacco Mosaic Virus (TMV) virion comprising a coat protein (CP) or a movement protein (MP) gene is replaced with a nuclear inclusion protease (NIa) expression cassette for the expression of a heterologous peptide in a tobacco mosaic virus (TMV) host plant.

21 Claims, 44 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 23

Full	Title	Citation	Frent	Review	Classification	Date	Reference		Claims	ROMO	Draw, Desi

☐ 18. Document ID: US 6419931 B1

L7: Entry 18 of 28

File: USPT

Jul 16, 2002

US-PAT-NO: 6419931

DOCUMENT-IDENTIFIER: US 6419931 B1

\*\* See image for Certificate of Correction \*\*

TITLE: Compositions and methods for eliciting CTL immunity

DATE-ISSUED: July 16, 2002

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Vitiello; Maria A. La Jolla CA Chestnut; Robert W. Cardiff by the Sea CA Sette; Alessandro D. La Jolla CA Celis; Esteban San Diego CA Grey; Howard La Jolla CA

US-CL-CURRENT: 424/201.1; 424/204.1, 424/208.1, 424/227.1, 424/228.1

ABSTRACT:

Cytotoxic T lymphocyte responses are effectively induced to an antigen of interest, particularly viral, bacterial, parasitic and tumor antigens. Compositions, including pharmaceutical compositions, of CTL-inducing peptide and an adjuvant or a lipidated peptide which induces a helper T cell (HTL) response stimulate the antigen specific CTL response. Among the viral antigens to which the CTL responses are effectively induced in humans are those of hepatitis B. The CTL response may be optimized by a regimen of two or more booster administrations. Cocktails of two or more CTL inducing peptides are employed to optimize epitope and/or MHC class I restricted coverage.

27 Claims, 53 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 27

Full Title	Citation Front	Review	Classification	Date	Reference		Claims	KMC	Drawn Desc
	Document ID					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
L7: Entry	/ 19 of 28				File:	USPT	Nov	27,	2001

US-PAT-NO: 6322789

DOCUMENT-IDENTIFIER: US 6322789 B1

TITLE: HLA-restricted hepatitis B virus CTL epitopes

DATE-ISSUED: November 27, 2001

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Vitiello; Maria A. La Jolla CA Chesnut; Robert W. Cardiff by the Sea CA

US-CL-CURRENT: 424/189.1; 424/193.1, 424/196.11, 424/227.1

#### ABSTRACT:

Cytotoxic T lymphocyte-stimulating peptides induce HLA-restricted responses to hepatitis B virus antigens. The peptides, derived from CTL epitopic regions of both HBV surface and nucleocapsid antigens, are particularly useful in the treatment and prevention of HBV infection, including the treatment of chronically infected HBV carriers. The peptides can be formulated as HBV vaccines and pharmaceutical compositions, such as lipid-containing compositions for enhancing the HLA-restricted CTL responses. The peptides are also useful in diagnostic methods, such as predicting which HBV-infected individuals are prone to developing chronic infection.

22 Claims, 51 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 18

L7: Entry 20 of 28

File: USPT

Dec 26, 2000

US-PAT-NO: 6165477

DOCUMENT-IDENTIFIER: US 6165477 A

TITLE: Subunit immonogenic composition against dengue infection

DATE-ISSUED: December 26, 2000

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Ivy; JohnKailuaHINakano; EilenHon.HIClements; DavidHonoluluHI

US-CL-CURRENT: 424/218.1; 424/184.1, 424/186.1, 435/69.3, 435/70.1

#### ABSTRACT:

The Flaviviridae comprise a number of medically important pathogens that cause significant morbidity in humans including the dengue (DEN) virus, Japanese encephalitis (JE) virus, tick-borne encephalitis virus (TBE), and yellow fever virus (YF). Flaviviruses are generally transmitted to vertebrates by chronically infected mosquito or tick vectors. The viral particle which is enveloped by host cell membranes, comprises a single positive strand genomic RNA and the structural capsid (CA), membrane (M), and envelope (E) proteins. The E and M proteins are found on the surface of the virion where they are anchored in the membrane. Mature E is glycosylated and contains functional domains responsible for cell surface attachment and intraendosomal fusion activities. Problems have arisen in the art with respect to producing recombinant forms of the E glycoprotein that retain their native configuration and attendant properties associated therewith (i.e., ability to induce neutralizing antibody responses). To date, recombinantly produced E glycoproteins have suffered from a number of limitations including improper glycosylation, folding, and disulfide bond formation. The claimed invention has addressed these concerns by providing secreted recombinant forms of the E glycoprotein that are highly immunogenic and appear to retain their native configuration. Carboxy-terminally truncated forms of E containing the amino terminal 395 amino acids and a suitable secretion signal sequence were generated in Drosophila melanogaster Schneider cell lines. Immunogenic compositions comprising these recombinant envelope glycoproteins were capable of inducing protective, neutralizing antibody responses when administered to a suitable host.

13 Claims, 19 Drawing figures Exemplary Claim Number: 4,9 Number of Drawing Sheets: 19

Full	T	litle:	Citation	Front	Review	Classification	Date	Reference		Draw Desc

# ☐ 21. Document ID: US 6136561 A

L7: Entry 21 of 28

File: USPT

Oct 24, 2000

US-PAT-NO: 6136561

DOCUMENT-IDENTIFIER: US 6136561 A

TITLE: Methods of preparing carboxy-terminally truncated recombinant flavivirus envelope glycoproteins employing drosophila melanogaster expression systems

DATE-ISSUED: October 24, 2000

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Ivy; JohnKailuaHINakano; EilenHonoluluHIClements; DavidHonoluluHI

US-CL-CURRENT: <u>435/69.3</u>; <u>424/218.1</u>, 435/69.7, 435/69.8

#### ABSTRACT:

The Flaviviridae comprise a number of medically important pathogens that cause significant morbidity in humans including the dengue (DEN) virus, Japanese encephalitis (JE) virus, tick-borne encephalitis virus (TBE), and yellow fever virus (YF). Flaviviruses are generally transmitted to vertebrates by chronically infected mosquito or tick vectors. The viral particle which is enveloped by host cell membranes, comprises a single positive strand genomic RNA and the structural capsid (CA), membrane (M), and envelope (E) proteins. The E and M proteins are found on the surface of the virion where they are anchored in the membrane. Mature E is glycosylated and contains functional domains responsible for cell surface attachment and intraendosomal fusion activities. Problems have arisen in the art with respect to producing recombinant forms of the E glycoprotein that retain their native configuration and attendant properties associated therewith (i.e., ability to induce neutralizing antibody responses). To date, recombinantly produced E glycoproteins have suffered from a number of limitations including improper glycosylation, folding, and disulfide bond formation. The claimed invention has addressed these concerns by providing secreted recombinant forms of the E glycoprotein that are highly immunogenic and appear to retain their native configuration. Carboxy-terminally truncated forms of E containing the amino terminal 395 amino acids and a suitable secretion signal sequence were generated in Drosophila melanogaster Schneider cell lines. The recombinant proteins produced by this expression system should prove useful, inter alia, as immunogens and diagnostic reagents.

14 Claims, 18 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 18

		Claims KWMC	Draw, Des

□ 22. Document no. US 0022900 F

L7: Entry 22 of 28 File: USPT Feb 8, 2000

US-PAT-NO: 6022960

DOCUMENT-IDENTIFIER: US 6022960 A

TITLE: GnRH-leukotoxin chimeras

DATE-ISSUED: February 8, 2000

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Potter; Andrew A. Saskatoon CA
Manns; John G. Saskatoon CA

US-CL-CURRENT: 536/23.1; 424/184.1, 424/235.1, 435/252.3, 435/320.1, 435/69.3, 435/69.7, 536/23.4, 536/23.7

#### ABSTRACT:

New immunological carrier systems, DNA encoding the same, and the use of these systems, are disclosed. The carrier systems include chimeric proteins which include a leukotoxin polypeptide fused to one or more selected GnRH multimers which comprise at least one repeating GnRH decapeptide sequence, or at least one repeating unit of a sequence corresponding to at least one epitope of a selected GnRH molecule. Under the invention, the selected GnRH sequences may all be the same, or may correspond to different derivatives, analogues, variants or epitopes of GnRH so long as the GnRH sequences are capable of eliciting an immune response. The leukotoxin functions to increase the immunogenicity of the GnRH multimers fused thereto.

4 Claims, 15 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 37

Full	Title	Citation Fro	nt Revi	ew (	Classification	Date	Reference		Claims	KWMC	Draw, Des
	23.	Document	ID: US	S 59:	55647 A		•••••	 ······································	······································		······································

US-PAT-NO: 5955647

DOCUMENT-IDENTIFIER: US 5955647 A

TITLE: Method for using tobacco mosaic virus to overproduce peptides and proteins

DATE-ISSUED: September 21, 1999

INVENTOR-INFORMATION:

NAME CTTY STATE ZIP CODE COUNTRY

Fitchen; John H. La Jolla CA Beachy; Roger N. La Jolla CA

US-CL-CURRENT: 800/298; 435/235.1, 435/236, 435/69.3, 530/412, 536/23.72, 800/288,

800/317.3

#### ABSTRACT:

The invention describes an infectious modified Tobacco Mosaic Virus (TMV) virion comprising a modified coat protein (CP) having a heterologous peptide inserted between amino acid residues 154 and 155 of CP. Also described is an infectious TMV virion having a modified movement protein (MP). The invention further describes nucleotide sequences encoding the modified TMV virion with either a modified CP or modified MP, and methods for producing the heterologous peptide in plants using the nucleotide sequences and modified virions.

33 Claims, 44 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 23

Full	Title	Ortation	Front	Review	Classification	Date	Reference	200	Claims	KMC	Drawi Des

Sep 21, 1999

L7: Entry 24 of 28

File: USPT

Dec 1, 1998

US-PAT-NO: 5843446

DOCUMENT-IDENTIFIER: US 5843446 A

TITLE: Immunogenic LHRH peptide constructs and synthetic universal immune stimulators

for vaccines

DATE-ISSUED: December 1, 1998

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Ladd; Anna Efim Brooklyn NY Wang; Chang Yi Cold Spring Harbor NY Zamb; Timothy Joseph Stony Brook NY

US-CL-CURRENT: 424/184.1; 424/185.1, 424/195.11, 424/811

#### ABSTRACT:

This invention relates to immunogenic luteinizing hormone releasing hormone (LHRH) peptides that lead to suppression of LHRH activity in males or females. These peptides are useful for inducing infertility and for treating prostatic hyperplasia, androgen-dependent carcinoma, prostatic carcinoma and testicular carcinoma in males. In females, the peptides are useful for treating endometriosis, benign uterine tumors, recurrent functional ovarian cysts and (severe) premenstrual syndrome as well as prevention or treatment of estrogen-dependent breast cancer. The subject peptides contain a helper T cell epitope and have LHRH at the C terminus. The helper T cell epitope aids in stimulating the immune response against LHRH. The peptides, optionally contain an invasin domain which acts as a general immune stimulator.

In another aspect this invention relates to immunogenic synthetic peptides having an invasin domain, a helper T cell epitope and a peptide hapten and methods of using these peptides to treat disease or provide protective immunity. The peptide haptens of the invention include LHRH, amylin, gastrin, gastrin releasing peptide, IgE CH4 peptide, Chlamydia MOMP peptides, HIV V3 peptides and Plasmodium berghei.

19 Claims, 39 Drawing figures Exemplary Claim Number: 1
Number of Drawing Sheets: 37

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	K0010	Drawi Desi

### ☐ 25. Document ID: US 5837268 A

L7: Entry 25 of 28

File: USPT

Nov 17, 1998

US-PAT-NO: 5837268

DOCUMENT-IDENTIFIER: US 5837268 A

TITLE: GnRH-leukotoxin chimeras

DATE-ISSUED: November 17, 1998

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Potter; Andrew A.

Saskatoon

CA

Manns; John G.

Saskatoon

CA

US-CL-CURRENT: 424/255.1; 424/184.1, 424/192.1, 424/193.1, 424/198.1, 424/200.1, 514/12, 514/15, 514/2, 514/7, 530/300, 530/350

#### ABSTRACT:

New immunological carrier systems, DNA encoding the same, and the use of these systems, are disclosed. The carrier systems include chimeric proteins which include a leukotoxin polypeptide fused to one or more selected GnRH multimers which comprise at least one repeating GnRH decapeptide sequence, or at least one repeating unit of a sequence corresponding to at least one <a href="mailto:epitope">epitope</a> of a selected GnRH molecule. Under the invention, the selected GnRH sequences may all be the same, or may correspond to different derivatives, analogues, variants or <a href="mailto:epitopes">epitopes</a> of GnRH so long as the GnRH sequences are capable of eliciting an immune response. The leukotoxin functions to increase the immunogenicity of the GnRH multimers fused thereto.

23 Claims, 42 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 37

Full	Title	Citation	Front	Review	Classification Date	Reference	Claims	KOME	Draw, Des-

☐ 26. Document ID: US 5759551 A

L7: Entry 26 of 28

File: USPT

Jun 2, 1998

US-PAT-NO: 5759551

DOCUMENT-IDENTIFIER: US 5759551 A

TITLE: Immunogenic LHRH peptide constructs and synthetic universal immune stimulators

for vaccines

DATE-ISSUED: June 2, 1998

#### INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Ladd; Anna Efim Brooklyn NY Wang; Chang Yi Cold Spring Harbor NY Zamb; Timothy Joseph Stony Brook NY

US-CL-CURRENT: <u>424/198.1</u>; <u>424/185.1</u>, <u>424/227.1</u>, <u>514/841</u>, <u>514/843</u>

#### ABSTRACT:

This invention relates to immunogenic luteinizing hormone releasing hormone (LHRH) peptides that lead to suppression of LHRH activity in males or females. When male rats are immunized with these peptides, serum testosterone drops and androgen-dependent organs atrophy significantly. These peptides are useful for inducing infertility and for treating prostatic hyperplasia, androgen-dependent carcinoma, prostatic carcinoma and testicular carcinoma in males. In females, the peptides are useful for treating endometriosis, benign uterine tumors, recurrent functional ovarian cysts and (severe) premenstrual syndrome as well as prevention or treatment of estrogen-dependent breast cancer. The subject peptides contain a helper T cell

epitope and have LHRH at the C terminus. The helper T cell epitope aids in stimulating the immune response against LHRH. The peptides, optionally contain an invasin domain which acts as a general immune stimulator. In another aspect this invention relates to immunogenic synthetic peptides having an invasin domain, a helper T cell epitope and a peptide hapten and methods of using these peptides to treat disease or provide protective immunity. The peptide haptens of the invention include LHRH, amylin, gastrin, gastrin releasing peptide, IgE CH4 peptide, Chlamydia MOMP peptides, HIV V3 peptides and Plasmodium berghei.

15 Claims, 37 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 37

Fuil	Titl∈	Citation Front	Review	Classification	Date	Reference		Claims	Draw, Des
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File: USPT

US-PAT-NO: 5573916

L7: Entry 27 of 28

DOCUMENT-IDENTIFIER: US 5573916 A

TITLE: Immunogenic constructs comprising b-cell and t-cell epitopes on common carrier

DATE-ISSUED: November 12, 1996

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Cheronis; John C. Lakewood CO
Coeshott; Claire Denver CO

US-CL-CURRENT: 435/7.1; 424/204.1, 424/208.1, 530/350

ABSTRACT:

The present invention relates to immunogenic constructs capable of eliciting an IgG antibody response in a host in the absence of adjuvant.

10 Claims, 10 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 10

Draws D

# ☐ 28. Document ID: US 5231168 A

L7: Entry 28 of 28

File: USPT

Jul 27, 1993

Nov 12, 1996

US-PAT-NO: 5231168

DOCUMENT-IDENTIFIER: US 5231168 A

TITLE: Malaria antigen

DATE-ISSUED: July 27, 1993

INVENTOR-INFORMATION:				
NAME	CITY	STATE	ZIP CODE	COUNTRY
Dziegiel; Morten	Roskilde			DK
Borre; Martin	Copenhagen			DK
Jepsen; Soren	Overisse			BE
Vuust; Jens	Dragor			DK
Rieneck; Klaus	Copenhagen			DK
Wind; Annette	Farum			DK
Jakobsen; Palle H.	Koge			DK

US-CL-CURRENT: 530/350; 530/300

# ABSTRACT:

The present invention relates to a polypeptide comprising a characteristic amino acid sequence derived from the Plasmodium falciparum antigen GLURP, a polypeptide which is recognized by an antibody raised against or reactive with a polypeptide comprising said characteristic amino acid sequence and/or an antibody reactive with native GLURP, a nucleic acid molecule (DNA-fragment) encoding said polypeptide, an expression vector carrying the nucleic acid molecule, an organism expressing said nucleic acid molecule so as to produce said polypeptide, a monoclonal antibody directed against said polypeptide, a diagnostic agent comprising said antibody or said polypeptide for use in assaying Plasmodium falciparum infection and thus diagnosing malaria, and the use of said antibody or said polypeptide for therapeutic purposes, e.g. as a component in a vaccine.

7 Claims, 20 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 21

Full	Title	Ortation	Frent	Review	Classification	Date	Reference			Claims	KOMC	Draw Des
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# **Hit List**

Clear Generate Collection Print Fwd Refs Bkwd Refs Generate OACS

Search Results - Record(s) 1 through 58 of 58 returned.

☐ 1. Document ID: US 20040191264 A1

Using default format because multiple data bases are involved.

L14: Entry 1 of 58

File: PGPB

Sep 30, 2004

PGPUB-DOCUMENT-NUMBER: 20040191264

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040191264 A1

TITLE: Synthetic vaccine agents

PUBLICATION-DATE: September 30, 2004

INVENTOR-INFORMATION:

NAME

CITY

STATE COUNTRY

RULE-47

Nielsen, Klaus Gregorius

Horsholm

DK

Koefoed, Peter

Horsholm

DK

US-CL-CURRENT: 424/184.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	Kindo	Draw, Des

☐ 2. Document ID: US 20040185055 A1

L14: Entry 2 of 58

File: PGPB

Sep 23, 2004

PGPUB-DOCUMENT-NUMBER: 20040185055

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040185055 A1

TITLE: Transcutaneous immunostimulation

PUBLICATION-DATE: September 23, 2004

INVENTOR-INFORMATION:

NAME

CITY

STATE

COUNTRY RULE-47

Glenn, Gregory M

Poolesville

MD

US

Six, Howard R

Lewisburg

TN

US

US-CL-CURRENT: 424/184.1

ABSTRACT:

Transcutaneous immunostimulation administers at least one adjuvant by transcutaneous immunization to a subject who has undergone, is undergoing, or will undergo conventional vaccination. A subject is selected for treatment to stimulate the immune

http://westbrs:9000/bin/gate.exe?f=TOC&state=45sl2g.15&ref=14&dbname=PGPB, USPT, U... 11/23/04/2009. The property of the pro

response to a conventional vaccine. A suspicion, medical history, or determination by a physician or veterinarian that the subject may fail to respond or only poorly respond to conventional vaccination because of age, acquired or congenital immunodeficiency, immunosuppression caused by disease or ablative therapy, or the use of reduced amounts of antigen in the conventional vaccine can be used to select subjects in need of treatment

Full Title	Ortation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KOMC	Draw, Desi
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☐ 3. Document ID: US 20040146534 A1

L14: Entry 3 of 58

File: PGPB

Jul 29, 2004

PGPUB-DOCUMENT-NUMBER: 20040146534

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040146534 A1

TITLE: Vaccine for transcutaneous immunization

PUBLICATION-DATE: July 29, 2004

INVENTOR-INFORMATION:

NAME

CITY

STATE

RULE-47

Glenn, Gregory M.

Poolesville

MD

COUNTRY

Cassels, Frederick J.

Laurel

MD

US

US-CL-CURRENT: 424/257.1

#### ABSTRACT:

A vaccine delivered by transcutaneous immunization provides an effective treatment against infections by pathogens such as, for example, enterotoxigenic Escherichia coli (ETEC) and/or for symptoms of diarrheal disease caused thereby. For example, one, two, three, four, five or more antigens derived from ETEC and capable of inducing an antigen-specific immune response (e.g., toxins, colonization or virulence factors) and one or more optional adjuvant (e.g., whole bacterial ADP-ribosylating exotoxins, B subunits or toxoids thereof, detoxified mutants and derivatives thereof) are used to manufacture vaccines or to induce systemic and/or mucosal immunity.

Full Title Citation Front Review Classification	Date Reference	Sequences	Attachments	Claims	F504C	Draw Desc
☐ 4. Document ID: US 2004014288	7 A 1					

PGPUB-DOCUMENT-NUMBER: 20040142887

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040142887 A1

TITLE: Antigen-polymer compositions

PUBLICATION-DATE: July 22, 2004

INVENTOR-INFORMATION:

http://westbrs:9000/bin/gate.exe?f=TOC&state=45sl2g.15&ref=14&dbname=PGPB,USPT,U... 11/23/04

NAME CITY STATE COUNTRY RULE-47 Cui, Chengji Ann Arbor MI CN Schwendeman, Steven P. Ann Arbor OH US Stevens, Vernon Dublin US

US-CL-CURRENT: 514/44; 424/184.1, 424/185.1

#### ABSTRACT:

Methods for enhancing immunogenic response to an antigen, particularly a peptide antigen in a mammalian subject. The method comprises administering a biodegradable polymeric delivery system which comprises one or more antigens of interest and a biologically effective amount of one or more basic additives to the mammalian subject. In a highly preferred embodiment, the basic additive in MgCO.sub.3, and the biodegradable polymeric delivery system is a <u>PLGA</u> microparticle. The present invention also relates to the immunogenic compositions used in the present method.

Full Title Citation Front Review Classification	Date Reference	Sequences	Attachments	Claims	KMC	Draw. Des
				***************************************	••••	
☐ 5. Document ID: US 20040137004	<b>A</b> 1					
L14: Entry 5 of 58	File: F	GPB		Jul	15,	2004

PGPUB-DOCUMENT-NUMBER: 20040137004

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040137004 A1

TITLE: Patch for transcutaneous immunization

PUBLICATION-DATE: July 15, 2004

#### INVENTOR-INFORMATION:

CITY	STATE	COUNTRY	RULE-47
Poolesville	MD	US	
Bethesda	MD	US	
Gaithersburg	MD	US	
Miami	$\mathtt{FL}$	US	
Miramar	FL	US	
	Poolesville Bethesda Gaithersburg Miami	Poolesville MD Bethesda MD Gaithersburg MD Miami FL	Poolesville MD US Bethesda MD US Gaithersburg MD US Miami FL US

US-CL-CURRENT: 424/184.1

#### ABSTRACT:

A protein-in-adhesive patch for transcutaneous immunization is described with at least four different components: (i) backing layer; (ii) pressure-sensitive adhesive adhering to the backing layer; (iii) at last one immunologically-active protein of an immunogenic formulation applied to the pressure-sensitive adhesive layer opposite the backing layer and/or incorporated in the pressure-sensitive adhesive layer such that the at least one protein is in contact with adhesive; and (iv) stabilizer which maintains the immunological activity of the at least one protein under ambient conditions.

# ☐ 6. Document ID: US 20040109869 A1

L14: Entry 6 of 58

File: PGPB

Jun 10, 2004

PGPUB-DOCUMENT-NUMBER: 20040109869

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040109869 A1

TITLE: Transcutaneous immunostimulation

PUBLICATION-DATE: June 10, 2004

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47 Glenn, Gregory M. Poolesville MD US Ellingsworth, Larry R. Rockville MD US Hammond, Scott A. Olney MD US

US-CL-CURRENT: <u>424</u>/<u>185.1</u>

# ABSTRACT:

Transcutaneous immunostimulation administers at least one adjuvant by transcutaneous immunization to a subject who has undergone, is undergoing, or will undergo conventional vaccination or another immune response. A subject is selected for treatment to stimulate the immune response to a conventional vaccine or other immunotherapy. A suspicion, medical history, or determination by a physician or veterinarian that the subject may fail to respond or only poorly respond to conventional vaccination or other immunotherapy because of age, acquired or congenital immunodeficiency, immunosuppression caused by disease or ablative therapy, or the use of reduced amounts of antigen in the conventional vaccine can be used to select subjects in need of treatment.

Full	Title Citation Fro	nt Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw Des
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	7. Document I	D: US 200	040086525 A	<b>A</b> 1						
L14:	Entry 7 of 58				File:	PGPB		Ma	v 6.	2004

PGPUB-DOCUMENT-NUMBER: 20040086525

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040086525 A1

TITLE: Chlamydia antigens and corresponding DNA fragments and uses thereof

PUBLICATION-DATE: May 6, 2004

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47 Murdin, Andrew D. Richmond Hill CA Oomen, Raymond P. Aurora CA Wang, Joe Toronto CA Dunn, Pamela Woodbridge CA

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US-CL-CURRENT: 424/190.1; 435/252.3, 435/320.1, 435/69.3, 530/350, 536/23.7

#### ABSTRACT:

The present invention provides a method of nucleic acid, including DNA, immunization of a host, including humans, against disease caused by infection by a strain of Chlamydia, specifically C. pneumoniae, employing a vector containing a nucleotide sequence encoding full-length, 5'-truncated or 3'-truncated 76 kDa protein of a strain of Chlamydia pneumoniae and a promoter to effect expression of the 76 kDa protein gene in the host. Modifications are possible within the scope of this invention.

Full	Title	Ortation Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	800 <b>0</b> 0	Draw, Des
	8.	Document ID:	US 20	040071717	Al						

PGPUB-DOCUMENT-NUMBER: 20040071717

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040071717 A1

TITLE: Recombinant DNA encoding the major allergen of plantago lanceolata pollen,  $\underline{Pla}$  I 1, and applications thereof

PUBLICATION-DATE: April 15, 2004

#### INVENTOR-INFORMATION:

CITY	STATE	COUNTRY	RULE-47
Madrid		ES	
	Madrid Madrid Madrid Madrid	Madrid Madrid Madrid Madrid	Madrid ES Madrid ES Madrid ES Madrid ES

US-CL-CURRENT: 424/185.1; 530/370, 536/23.6

#### ABSTRACT:

A nucleic acid molecule encoding a peptide or protein comprising at least one <u>epitope</u> of the major allergen of Plantago lanceolata, <u>Pla</u> I 1, wherein the nucleic acid molecule a) has the sequence of SEQ ID NOS.: 5-7, b) is a fragment of the sequence SEQ ID NOS.: 5-7, c) has a sequence encoding the amino acid sequence of SEQ ID NO.: 8 or a fragment thereof, d) has a sequence hybridising to SEQ ID NOS.: 5-7 under stringent conditions, e) has a sequence derivable by degeneration of SEQ ID NOS.: 5-7, or f) a complementary strand of any of the sequences a)-e).

Full Title Citation Front Review Classific	cation Date Reference	: Sequences	Attachments	Claims	Kindo	Draw, Des
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☐ 9. Document ID: US 2004002					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	

PGPUB-DOCUMENT-NUMBER: 20040028727

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040028727 A1

TITLE: Dry formulation for transcutaneous immunization

PUBLICATION-DATE: February 12, 2004

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Glenn, Gregory M. Cabin John MD US

Scharton-Kersten, Tanya Bethesda MD US

US-CL-CURRENT: 424/449; 424/185.1, 424/85.1, 514/44, 514/54

#### ABSTRACT:

A transcutaneous immunization system delivers antigen to immune cells through the skin, and induces an immune response in an animal or human. For example, a skin-active adjuvant (e.g., an ADP-ribosylating exotoxin) can be used to induce an antigen-specific immune response (e.g., humoral and/or cellular effectors) after transcutaneous application of a dry formulation containing antigen and adjuvant to skin of the animal or human. The dry formulation may be a powder or a unit-dose patch. Use of adjuvant is not required if the antigen is sufficiently antigenic. Transcutaneous immunization may be induced with or without penetration enhancement.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Drawn Desc
				***************************************		*****************						

☐ 10. Document ID: US 20030225017 A1

L14: Entry 10 of 58

File: PGPB

Dec 4, 2003

PGPUB-DOCUMENT-NUMBER: 20030225017

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030225017 A1

TITLE: Chlamydia antigens and corresponding DNA fragments and uses thereof

PUBLICATION-DATE: December 4, 2003

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Murdin, Andrew D. Richmond Hill CA
Oomen, Raymond P. Aurora CA
Wang, Joe Toronto CA

Nang, Joe Toronto CA

Dunn, Pamela Woodbridge CA

US-CL-CURRENT: 514/44; 424/185.1, 435/252.3, 435/320.1, 435/6, 435/69.3, 530/350, 536/23.2

### ABSTRACT:

The present invention provides a method of nucleic acid, including DNA, immunization of a host, including humans, against disease caused by infection by a strain of Chlamydia, specifically C. pneumoniae, employing a vector containing a nucleotide

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sequence encoding a membrane ATPase of a strain of Chlamydia pneumoniae and a promoters to effect expression of the membrane ATPase in the host. Modifications are possible within the scope of this invention.

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims Kindo Draw Des-

☐ 11. Document ID: US 20030224004 A1

L14: Entry 11 of 58

File: PGPB

Dec 4, 2003

PGPUB-DOCUMENT-NUMBER: 20030224004

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030224004 A1

TITLE: Chlamydia antigens and corresponding DNA fragments and uses thereof

PUBLICATION-DATE: December 4, 2003

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47 Murdin, Andrew D. Newmarket CA Oomen, Raymond P. Schomberg CA Wang, Joe Etobicoke CA Dunn, Pamela Mississauga CA

US-CL-CURRENT: 424/184.1

#### ABSTRACT:

The present invention provides nucleic acids, proteins and vectors for a method of nucleic acid, including DNA, immunization of a host, including humans, against disease caused by infection by a strain of Chlamydia, specifically C. pneumoniae. The method employs a vector containing a nucleotide sequence encoding a transmembrane protein of a strain of Chlamydia pneumoniae and a promoter to effect expression of the transmembrane protein gene product in the host. Modifications are possible within the scope of this invention.

Full   Title	Oitation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KNOC	Drawn Des

☐ 12. Document ID: US 20030206921 A1

L14: Entry 12 of 58

File: PGPB

Nov 6, 2003

PGPUB-DOCUMENT-NUMBER: 20030206921

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030206921 A1

TITLE: Chlamydia antigens and corresponding DNA fragments and uses thereof

PUBLICATION-DATE: November 6, 2003

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

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Murdin, Andrew D. Richmond Hill CA
Oomen, Raymond P. Aurora CA
Wang, Joe Toronto CA
Dunn, Pamela Woodbridge CA

US-CL-CURRENT: 424/190.1; 435/252.3, 435/320.1, 435/6, 435/69.3, 530/350, 530/388.4, 536/23.7

#### ABSTRACT:

The present invention provides nucleic acids, proteins and vectors for a method of nucleic acid, including DNA, immunization of a host, including humans, against disease caused by infection by a strain of Chlamydia, specifically C. pneumoniae. The method employs a vector containing a nucleotide sequence encoding an ATP-binding cassette of a strain of Chlamydia pneumoniae and a promoter to effect expression of the ATP-binding cassette gene product in the host. Modifications are possible within the scope of this invention.

Full	Title Otation Front	Review Classifi	cation Date	Reference	Sequences	Attachments	Claims	KMMC	Draw Des
	13. Document ID	: US 200301	85845 A1						
L14:	Entry 13 of 58			File:	PGPB		00	+ 2	2003

PGPUB-DOCUMENT-NUMBER: 20030185845

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030185845 A1

TITLE: Novel immunogenic mimetics of multimer proteins

PUBLICATION-DATE: October 2, 2003

#### INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Klysner, Steen	Horsholm		DK	
Nielsen, Finn Stausholm	Horsholm		DK	
Mouritsen, Soren	Horsholm		DK	
Voldborg, Bjorn	Horsholm		DK	
Bratt, Tomas	Horsholm		DK	

US-CL-CURRENT: 424/185.1; 530/350

#### ABSTRACT:

The present invention relatas to novel immunogenic variants of multimeric proteins such as immunogenic variants of interleukin 5 (IL5) and tumour necrosis factor alpha (TNF, TNF.alpha.). The variants are, besides from being immunogenic in the autologous host, also highly similar to the native 3D structure of the proteins from which they are derived. Certain variants are monomeric mimics of the multimers, where peptide linkers (inert or T helper epitope containing) ensure a spatial organisation of the monomomer units that facilitate correct folding. A subset of variants are monomer TNF.alpha. variants that exhibit a superior capability of assembling into multimers with a high structural similarity to the native protein. Also disclosed are methods of treatment and production of the variants as well as DNA fragments, vectors, and host cells.

# ☐ 14. Document ID: US 20030161889 A1

L14: Entry 14 of 58

File: PGPB

Aug 28, 2003

PGPUB-DOCUMENT-NUMBER: 20030161889

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030161889 A1

TITLE: Vaccines against diseases caused by enteropathogenic organisms using antigens encapsulated within biodegradable-biocompatible microspheres

PUBLICATION-DATE: August 28, 2003

# INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Reid, Robert H.	Kensington	MD	US	
Setterstrom, Jean A.	Alpharetta	GA	US	
Boedeker, Edgar	Crownsville	MD	US	
VanHamont, John	Fort Meade	MD	US	
McQueen, Charles	Olney	MD	US	
Cassels, Frederick	Ellicott City	MD	US	

US-CL-CURRENT: 424/491; 424/184.1

#### ABSTRACT:

This invention relates to an immunostimulating composition comprising encapsulating microspheres, which may contain a pharmaceutically-acceptab- le adjuvant, wherein said microspheres having a diameter between 1 nanometer (nm) to 10 microns (um) are comprised of (a) a biodegradable-biocompatible poly(DL-lactide-co-glycolide) as the bulk matrix, wherein the relative ratio between the amount of lactide and glycolide components are within the range of 40:60 to 0:100 and wherein said poly (DL-lactide-co-glycolide) is present in an uncapped form and an end-capped form wherin a ratio of uncapped to end-capped forms is 99/1 to 1/99, and (b) an immunogenic substance comprising Colony Factor Antigen (CFA/II), hepatitis B surface antigen (HbsAg), or a physiologically similar antigen that serves to elicit the producton of antibodies in animal subjects. The preparation of its composition and its use as a vaccine is also disclosed.

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Full	Title	Citation	Front	Parison	Clarationtics	DA.	D	5	11/4 12-22			Ţ
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☐ 15. Document ID: US 20030161833 A1

L14: Entry 15 of 58

File: PGPB

Aug 28, 2003

PGPUB-DOCUMENT-NUMBER: 20030161833

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030161833 A1

TITLE: Chlamydia antigens and corresponding DNA fragments and uses thereof

PUBLICATION-DATE: August 28, 2003

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Murdin, Andrew D. Richmond Hill CA
Oomen, Raymond P. Aurora CA

Wang, Joe Toronto CA

Dunn, Pamela Woodbridge CA

US-CL-CURRENT: <u>424/184.1</u>; <u>536/23.1</u>

#### ABSTRACT:

The present invention provides a method of nucleic acid, including DNA, immunization of a host, including humans, against disease caused by infection by a strain of Chlamydia, specifically C. pneumoniae, employing a vector containing a nucleotide sequence encoding an omp P6 precursor of a strain of Chlamydia pneumoniae and a promoter to effect expression of the omp P6 precursor in the host. Modifications are possible within the scope of this invention.

Full Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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□ 16.	Docume	ent ID	): US 2	003015712	4 A1	······································	······································	······································	***************************************		

PGPUB-DOCUMENT-NUMBER: 20030157124

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030157124 A1

TITLE: Chlamydia antigens and corresponding DNA fragments and uses thereof

PUBLICATION-DATE: August 21, 2003

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47 Murdin, Andrew D. Richmond Hill CA

Oomen, Raymond P.AuroraCAWang, JoeTorontoCADunn, PamelaWoodbridgeCA

US-CL-CURRENT: 424/190.1; 435/252.3, 435/320.1, 435/69.3, 530/350, 536/23.7

#### ABSTRACT:

The present invention provides a method of nucleic acid, including DNA, immunization of a host, including humans, against disease caused by infection by a strain of Chlamydia, specifically C. pneumoniae, employing a vector containing a nucleotide sequence encoding a 98 kDa outer membrane protein of a strain of Chlamydia pneumoniae and a promoter to effect expression of the 98 kDa outer membrane protein gene in the host. Modifications are possible within the scope of this invention.

☐ 17. Document ID: US 20030157123 A1

L14: Entry 17 of 58

File: PGPB

Aug 21, 2003

PGPUB-DOCUMENT-NUMBER: 20030157123

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030157123 A1

TITLE: Chlamydia antigens and corresponding DNA fragments and uses thereof

PUBLICATION-DATE: August 21, 2003

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47 Murdin, Andrew D. Richmond Hill CA Oomen, Raymond P. Aurora CA 1. 1.6.6.6 Wang, Joe Toronto CADunn, Pamela Woodbridge CA

US-CL-CURRENT: 424/190.1; 435/252.3, 435/320.1, 435/69.3, 514/44, 530/350, 536/23.7

#### ABSTRACT:

The present invention provides a method of nucleic acid, including DNA, immunization of a host, including humans, against disease caused by infection by a strain of Chlamydia, specifically C. pneumoniae, employing a vector containing a nucleotide sequence encoding a membrane ATPase of a strain of Chlamydia pneumoniae and a promoter to effect expression of the membrane ATPase in the host. Modifications are possible within the scope of this invention.

Full Title (	itation Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Drawn Desi
П 19 г	Ocument ID:		0020157111		······································	······································	······································	·····	······································	······································
□ 10. L	ocument id.	0320	003013/11	/Al						

PGPUB-DOCUMENT-NUMBER: 20030157117

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030157117 A1

TITLE: Novel method for down-regulation of amyloid

PUBLICATION-DATE: August 21, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rasmussen, Peter Birk	Horsholm		DK	
Jensen, Martin Roland	Horsholm		DK	
Nielsen, Klaus Gregorius	Horsholm		DK	
Koefoed, Peter	Horsholm		DK	
Degan, Florence Dal	Horsholm		DK	

US-CL-CURRENT: 424/185.1; 435/226

#### ABSTRACT:

Disclosed are novel methods for combatting diseases characterized by deposition of amyloid. The methods generally rely on immunization against amyloid precursor protien (APP) or beta amyloid (A.beta.). Immunization is preferably effected by administration of analogues of autologous APP or A.beta., said analogues being capable of inducing antibody production against the autologous amyloidogenic polypeptides. Especially preferred as an immunogen is autologous A.beta. which has been modified by introduction of one single or a few foreign, immunodominant and promiscuous T-cell epitopes. Also disclosed are nucleic acid vaccination against APP or A.beta. and vaccination using live vaccines as well as methods and means useful for the vaccination. Such methods and means include methods for the preparation of analogues and pharmaceutical formulations, as well as nucleic acid fragments, vectors, transformed cells, polypeptides and pharmaceutical formulations.

Full	Title Otation Front	Review Classification Date	Reference	Sequences	Attachments	Claims	KNOC	Drawi Des
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		D: US 20030118605 A		***************************************	***************************************	***************************************	***************************************	

PGPUB-DOCUMENT-NUMBER: 20030118605

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030118605 A1

TITLE: Proteins producing an altered immunogenic response and methods of making and using the same

PUBLICATION-DATE: June 26, 2003

#### INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Estell, David A.	San Mateo	CA	US	
Ganshaw, Grant C.	Tracy	CA	US	
Harding, Fiona A.	Santa Clara	CA	US	
Larenas, Edmund A.	Moss Beach	CA	US	
Poulose, Ayrookaran J.	Belmont	CA	US	
Sikorski, Elizabeth E.	Fairfield	ОН	US	
Russell, Elliott P.	Egham		GB	

US-CL-CURRENT: 424/190.1; 435/219

#### ABSTRACT:

The present invention relates to novel protein variants that exhibit reduced allergenicity when compared to the parental proteins. Also included are DNA molecules that encode the novel variants, host cells comprising the DNA and methods of making proteins less allergenic.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	150MC	Draw, Des
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☐ 20. Document ID: US 20030104067 A1

L14: Entry 20 of 58

File: PGPB

Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030104067

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030104067 A1

TITLE: Method of obtaining cellular immune responses from proteins

PUBLICATION-DATE: June 5, 2003

INVENTOR-INFORMATION:

NAME CITY

STATE COUNTRY

RULE-47

O' Hagan, Derek Singh, Manmohan

Berkeley Hercules CA CA US

US-CL-CURRENT: 424/490; 424/186.1, 424/188.1, 424/189.1

#### ABSTRACT:

A method for producing a cellular immune response in a vertebrate subject comprising administering to the vertebrate subject a vaccine composition comprising a protein particle antigen and a pharmaceutically acceptable excipient is disclosed.

Full Title Citation Front Review Classification	n Date	Reference	Sequences	Attachments	Claims	K004C	Draw, Des
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☐ 21. Document ID: US 200301007	'06 A1						

PGPUB-DOCUMENT-NUMBER: 20030100706

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030100706 A1

TITLE: Chlamydia antigens and corresponding DNA fragments and uses thereof

PUBLICATION-DATE: May 29, 2003

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47 Murdin, Andrew D. Richmond Hill CA

Oomen, Raymond P. Aurora CA
Wang, Joe Toronto CA
Dunn, Pamela Woodbridge CA

US-CL-CURRENT: <u>530/350</u>; <u>424/190.1</u>, <u>536/23.7</u>

#### ABSTRACT:

The present invention provides nucleic acids, proteins and vectors for a method of nucleic acid, including DNA, immunization of a host, including humans, against disease caused by infection by a strain of Chlamydia, specifically C. pneumoniae. The method employs a vector containing a nucleotide sequence encoding a myosin heavy

chain of a strain of Chlamydia pneumoniae and a promoter to effect expression of the myosin heavy chain gene product in the host. Modifications are possible within the scope of this invention.

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KiMC Draw Des

☐ 22. Document ID: US 20030095973 A1

L14: Entry 22 of 58

File: PGPB

May 22, 2003

PGPUB-DOCUMENT-NUMBER: 20030095973

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030095973 A1

TITLE: Chlamydia antigens and corresponding DNA fragments and uses thereof

PUBLICATION-DATE: May 22, 2003

INVENTOR-INFORMATION:

NAME

CITY

STATE

COUNTRY

RULE-47

Murdin, Andrew D.

Newmarket

CA

Oomen, Raymond P.

Aurora

CA

Wang, Joe Dunn, Pamela Etobicoke

CA

Mississauga

CA

US-CL-CURRENT: <u>424/184.1</u>

#### ABSTRACT:

The present invention provides a method of nucleic acid, including DNA, immunization of a host, including humans, against disease caused by infection by a strain of Chlamydia, specifically C. pneumoniae, employing a vector containing a nucleotide sequence encoding full-length, 5'-truncated or 3'-truncated 76 kDa protein of a strain of Chlamydia pneumoniae and a promoter to effect expression of the 76 kDa protein gene in the host. Modifications are possible within the scope of this invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KOMC	Draw, Desi
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☐ 23. Document ID: US 20030086938 A1

L14: Entry 23 of 58

File: PGPB

May 8, 2003

PGPUB-DOCUMENT-NUMBER: 20030086938

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030086938 A1

TITLE: Novel methods for down-regulation of amyloid

PUBLICATION-DATE: May 8, 2003

INVENTOR-INFORMATION:

NAME

CITY

STATE COUNTRY

RULE-47

http://westbrs:9000/bin/gate.exe?f=TOC&state=45sl2g.15&ref=14&dbname=PGPB,USPT,U... 11/23/04

Jensen, Martin Roland Birk, Peter

Horsholm Horsholm

DK

Nielsen, Klaus Gregorius

Horsholm

DK DK

US-CL-CURRENT: <u>424</u>/<u>185.1</u>

#### ABSTRACT:

Disclosed are novel methods for combatting diseases characterized by deposition of amyloid. The methods generally rely on immunization against amyloidogenic proteins (proteins contributing to formation of amyloid) such as beta amyloid (A.beta.). Immunization is preferably effected by administration of analogues of autologous amyloidogenic polypeptides, said analogues being capable of inducing antibody production against the autologous amyloidogenic polypeptides. Especially preferred as an immunogen is autologous A.beta. which has been modified by introduction of one single or a few foreign, immunodominant and promiscuous T-cell epitopes while substantially preserving the majority of A.beta.'s B-cell epitopes. Also disclosed are nucleic acid vaccination against amyloidogenic polypeptides and vaccination using live vaccines as well as methods and means useful for the vaccination. Such methods and means include methods for identification of useful immunogenic analogues of the amyloidgonic proteins, methods for the preparation of analogues and pharmaceutical formulations, as well as nucleic acid fragments, vectors, transformed cells, polypeptides and pharmaceutical formulations.

Full	Title Citation Front Review	Classification	Date Reference	Sequences	Attachments	Claims	KOMO	Drawn Desc
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	24. Document ID: US 20	0030072 <b>7</b> 64	<b>I</b> A1					
L14:	Entry 24 of 58		File:	PGPB		Apr	17,	2003

PGPUB-DOCUMENT-NUMBER: 20030072764

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030072764 A1

TITLE: Mucosal boosting following parenteral priming

PUBLICATION-DATE: April 17, 2003

INVENTOR-INFORMATION:

NAME

CITY

STATE

COUNTRY

RULE-47

Apr 17, 2003

O'Hagan, Derek

Berkeley

CA

US

US-CL-CURRENT: 424/184.1

# ABSTRACT:

Mucosal immunization using one or more antigens following parenteral administration of the same or different antigens is described.

Full	Title	Citation	Frent	Review	Classification	Date	Reference	Sequences	Attachments	Claims	F004C	Draw, Des

# ☐ 25. Document ID: US 20020197711 A1

L14: Entry 25 of 58

File: PGPB

Dec 26, 2002

PGPUB-DOCUMENT-NUMBER: 20020197711

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020197711 A1

TITLE: Coxsackievirus B4 expression vectors and uses thereof

PUBLICATION-DATE: December 26, 2002

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Ramsingh, Arlene I. Glenmont NY US Halim, Sadia S. Norwalk CT US

US-CL-CURRENT: 435/320.1; 424/148.1, 424/199.1, 424/207.1, 435/5, 435/69.7, 435/91.1,

435/91.33

#### ABSTRACT:

Disclosed is a recombinant attenuated coxsackievirus B4 virion which is engineered to contain a heterologous nucleic acid within the open reading frame of its genome, wherein the heterologous nucleic acid encodes a heterologous polypeptide which is expressed by the virion. Specific examples of attenuated coxsackievirus B4 virions suitable for use in the present invention are CB4-P and JVB. In one embodiment the heterologous nucleic acid is inserted into the P1 region of the genome such that the heterologous polypeptide is expressed as a fusion of a viral capsid protein. Methods of use of the recombinant attenuated coxsackievirus B4 virion include inducing an immune response in an individual to the heterologous polypeptide contained therein.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	kimic	Draw, Desc
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☐ 26. Document ID: US 20020187157 A1

L14: Entry 26 of 58 File: PGPB Dec 12, 2002

PGPUB-DOCUMENT-NUMBER: 20020187157

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020187157 A1

TITLE: Novel method for down-regulation of amyloid

PUBLICATION-DATE: December 12, 2002

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Jensen, Martin Roland Holte DK Rasmussen, Peter Birk Frederiksberg DK Nielsen, Klaus Gregorius Soborg DK

US-CL-CURRENT: <u>424/185.1</u>; <u>424/85.1</u>, <u>424/85.2</u>

ABSTRACT:

A method for in vivo down-regulation of amyloid protein in an animal, including a human being, the method comprising effecting presentation to the animal's immune system of an immunogenically effective amount of at least one amyloidogenic polypeptide or subsequence thereof which has been formulated so that immunization of the animal with the amyloidgenic polypeptide or subsequence thereof induces production of antibodies against the amyloidogenic polypeptide, and/or at least one analogue of the amyloidogenic polypeptide wherein is introduced at least one modification in the amino acid sequence of the amyloidogenic polypeptide which has as a result the immunization of the animal with the analogue induces production of antibodies against the amyloidogenic polypeptide.

Full Title Citation Front Review Classification	Date   Refere	nce Sequences	Attachments	Claims	E0040	Draw Desi
☐ 27. Document ID: US 20020132994	<b>A</b> 1					
L14: Entry 27 of 58	Fil	e: PGPB		Sen	19.	2002

PGPUB-DOCUMENT-NUMBER: 20020132994

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020132994 A1

TITLE: Chlamydia antigens and corresponding DNA fragments and uses thereof

PUBLICATION-DATE: September 19, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Murdin, Andrew D.	Richmond Hill		CA	
Oomen, Raymond P.	Aurora		CA	
Wang, Joe	Toronto		CA	
Dunn, Pamela	Woodbridge		CA	

US-CL-CURRENT: <u>536/23.1</u>

#### ABSTRACT:

The present invention provides nucleic acids, proteins and vectors for a method of nucleic acid, including DNA, immunization of a host, including humans, against disease caused by infection by a strain of Chlamydia, specifically C. pneumoniae. The method employs a vector containing a nucleotide sequence encoding a myosin heavy chain homolog of a strain of Chlamydia pneumoniae and a promoter to effect expression of the myosin heavy chain homolog gene product in the host. Modifications are possible within the scope of this invention.

Full Title Ottation Front Review Classificat	tion Date Reference	Sequences	Attachments	Claims	комс	Draw De:
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☐ 28. Document ID: US 20020123	3067 <b>A</b> 1			····		

PGPUB-DOCUMENT-NUMBER: 20020123067

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020123067 A1

TITLE: Chlamydia antigens and corresponding DNA fragments and uses thereof

PUBLICATION-DATE: September 5, 2002

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Murdin, Andrew D. Richmond Hill CA Oomen, Raymond P. Aurora CA Wang, Joe Toronto CA Dunn, Pamela

Woodbridge

US-CL-CURRENT: 435/7.1; 424/184.1, 530/350

#### ABSTRACT:

The present invention provides a method of nucleic acid, including DNA, immunization of a host, including humans, against disease caused by infection by a strain of Chlamydia, specifically C. pneumoniae, employing a vector containing a nucleotide sequence encoding an omp P6 precursor of a strain of Chlamydia pneumoniae and a promoter to effect expression of the omp P6 precursor in the host. Modifications are possible within the scope of this invention.

CA

Aug 29, 2002

Full	Title	Citation Front	Review Classification	Date	Reference	Sequences	Attachments	Claims	KWAC	Drawa Desc
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	29.		US 2002011916					~~~~		

File: PGPB

PGPUB-DOCUMENT-NUMBER: 20020119162

PGPUB-FILING-TYPE: new

L14: Entry 29 of 58

DOCUMENT-IDENTIFIER: US 20020119162 A1

TITLE: Synthetic vaccine agents

PUBLICATION-DATE: August 29, 2002

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47 Nielsen, Klaus Gregorius Horsholm DK

Koefoed, Peter Horsholm DK

US-CL-CURRENT: 424/185.1

#### ABSTRACT:

The present invention provides for novel immungens that are comprised of an activated polyhydroxypolymer backbone to which is attached 2 separate antigenic determinants. The 1st antigenic determinant includes a B-cell or CTL epitope and the 2nd antigenic determinant includes a T-helper epitope. In preferred embodiments, the antigenic determinants are derived from different molecules and species. Exemplary immunogens of the invention are constituted of a linear tresyl-activated dextran backbone to which is coupled  $\underline{B-cell}$  or CTL  $\underline{epitopes}$  of an antigen and to which is also coupled universal T-helper epitopes. Also disclosed are immunogenic compositions comprising the immunogens, methods of immunization and a method for identification of suitable immunogens of the invention.

# ☐ 30. Document ID: US 20020099188 A1

L14: Entry 30 of 58

File: PGPB

Jul 25, 2002

Jul 18, 2002

PGPUB-DOCUMENT-NUMBER: 20020099188

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020099188 A1

TITLE: Chlamydia antigens and corresponding DNA fragments and uses thereof

PUBLICATION-DATE: July 25, 2002

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Murdin, Andrew D. Richmond Hill CA Oomen, Raymond P. Aurora CA Wang, Joe Toronto CA

Dunn, Pamela Woodbridge CA

US-CL-CURRENT: <u>536/23.1</u>

#### ABSTRACT:

The present invention provides a method of nucleic acid, including DNA, immunization of a host, including humans, against disease caused by infection by a strain of Chlamydia, specifically C. pneumoniae, employing a vector containing a nucleotide sequence encoding an outer membrane protein of a strain of Chlamydia pneumoniae and a promoter to effect expression of the outer membrane protein in the host. Modifications are possible within the scope of this invention.

Full   Title	: Citation Front Review (	lassification Date Reference S	Sequences Attachments	Claims kimic Braw Desi
□ 31.	Document ID: US 200	020094965 A1		
L14: Enti	ry 31 of 58	File: P	CDD	Jul 18, 2002

PGPUB-DOCUMENT-NUMBER: 20020094965

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020094965 A1

TITLE: Chlamydia antigens and corresponding DNA fragments and uses thereof

PUBLICATION-DATE: July 18, 2002

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Murdin, Andrew D. Richmond Hill CA Oomen, Raymond P. Aurora CA Wang, Joe Toronto CA

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US-CL-CURRENT: <u>514/44</u>; <u>536/23.2</u>, <u>536/23.5</u>

#### ABSTRACT:

The present invention provides nucleic acids, proteins and vectors for a method of nucleic acid, including DNA, immunization of a host, including humans, against disease caused by infection by a strain of Chlamydia, specifically C. pneumoniae. The method employs a vector containing a nucleotide sequence encoding a glutamate binding protein of a strain of Chlamydia pneumoniae and a promoter to effect expression of the glutamate binding protein gene product in the host. Modifications are possible within the scope of this invention.

Full Title Citation Front Review Classification Da	ste Reference	Sequences	Attachments	Claims	KOMC	Draw, Des
☐ 32. Document ID: US 20020094340 A	\ 1			······································		······································
L14: Entry 32 of 58	File:	PGPB		Jul	18,	2002

PGPUB-DOCUMENT-NUMBER: 20020094340

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020094340 A1

TITLE: CHLAMYDIA ANTIGENS AND CORRESPONDING DNA THEREOF

PUBLICATION-DATE: July 18, 2002

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47 MURDIN, ANDREW D. NEWMARKET CA OOMEN, RAYMOND P. SCHOMBERG CA WANG, JOE ETOBICOKE CA DUNN, PAMELA MISSISSAUGA CA

US-CL-CURRENT: 424/263.1

#### ABSTRACT:

The present invention provides a method of nucleic acid, including DNA, immunization of a host, including humans, against disease caused by infection by a strain of Chlamydia, specifically C. pneumoniae, employing a vector containing a nucleotide sequence encoding a 98 kDa outer membrane protein of a strain of Chlamydia pneumoniae and a promoter to effect expression of the 98 kDa outer membrane protein gene in the host. Modifications are possible within the scope of this invention.

Full	Title	Offation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Drawi De:
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L14: Entry 33 of 58

File: PGPB

Jun 27, 2002

PGPUB-DOCUMENT-NUMBER: 20020082402

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020082402 A1

TITLE: Chlamydia antigens and corresponding DNA fragments and uses thereof

PUBLICATION-DATE: June 27, 2002

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Murdin, Andrew D. Richmond Hill CA
Oomen, Raymond P. Aurora CA
Wang, Joe Toronto CA
Dunn, Pamela Woodbridge CA

US-CL-CURRENT: 536/23.1; 424/184.1, 530/350

#### ABSTRACT:

The present invention provides nucleic acids, proteins and vectors for a method of nucleic acid, including DNA, immunization of a host, including humans, against disease caused by infection by a strain of Chlamydia, specifically C. pneumoniae. The method employs a vector containing a nucleotide sequence encoding a transmembrane protein of a strain of Chlamydia pneumoniae and a promoter to effect expression of the transmembrane protein gene product in the host. Modifications are possible within the scope of this invention.

Full Title Citation Front Review Classificati	ion Date Reference Sequences Atta	ichments Claims KMC Draw Desi
	•	
☐ 34. Document ID: US 20020081	1682 A1	
L14: Entry 34 of 58	File: PGPB	Jun 27, 2002

PGPUB-DOCUMENT-NUMBER: 20020081682

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020081682 A1

TITLE: Chlamydia antigens and corresponding DNA fragments and uses thereof

PUBLICATION-DATE: June 27, 2002

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47 Murdin, Andrew D. Richmond Hill CA

Oomen, Raymond P. Aurora CA Wang, Joe Toronto CA Dunn, Pamela Woodbridge CA

US-CL-CURRENT: 435/183; 424/263.1, 435/252.3, 435/320.1, 435/69.3, 536/23.7

# ABSTRACT:

The present invention provides a method fo nucleic acid, including DNA, immunization of a host, including humans, against disease caused by infection by a strain of Chlamydia, specifically C. pneumoniae, employing a vector containing a nucleotide

http://westbrs:9000/bin/gate.exe?f=TOC&state=45sl2g.15&ref=14&dbname=PGPB,USPT,U... 11/23/04

sequence encoding an ATP/ADP translocase of a strain of Chlamydia pneumoniae and a promoter to effect expression of the ATP/ADP translocase gene in the host. Modifications are possible within the scope of this invention.

Full	Title Citation	Front Review	Classification	Date Reference	Sequences	Attachments	Claims	F000C	Drawi Desc
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☐ 35. Document ID: US 20020071831 A1

L14: Entry 35 of 58

File: PGPB

Jun 13, 2002

PGPUB-DOCUMENT-NUMBER: 20020071831

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020071831 A1

TITLE: Chlamydia antigens and corresponding DNA fragments and uses thereof

PUBLICATION-DATE: June 13, 2002

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Murdin, Andrew D. Richmond Hill CA
Oomen, Raymond P. Aurora CA

Wang, Joe Toronto CA Dunn, Pamela Woodbridge CA

US-CL-CURRENT: 424/93.21; 424/185.1, 435/183, 435/320.1, 435/325, 435/69.1, 514/44,

536/23.2

#### ABSTRACT:

The present invention provides nucleic acids, proteins and vectors for a method of nucleic acid, including DNA, immunization of a host, including humans, against disease caused by infection by a strain of Chlamydia, specifically C. pneumoniae. The method employs a vector containing a nucleotide sequence encoding an ATP-binding cassette of a strain of Chlamydia pneumoniae and a promoter to effect expression of the ATP-binding cassette gene product in the host. Modifications are possible within the scope of this invention.

		Classification	vate	Meteteude	Sequences	Attachments	Claims	KOME	Draw, Des

☐ 36. Document ID: US 20020041879 A1

L14: Entry 36 of 58

File: PGPB

Apr 11, 2002

PGPUB-DOCUMENT-NUMBER: 20020041879

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020041879 A1

TITLE: IMMUNOLOGICAL RESPONSE POTENTIATION PROCESS

PUBLICATION-DATE: April 11, 2002

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47 GANDER, BRUNO IMMENSEE CH CORRADIN, GIAMPIETRO LAUSANNE CH MEN, YING LAUSANNE CH THOMASIN, CLAUDIO RAPPERSWIL CH MERKLE, HANS P. ZURICH CH

US-CL-CURRENT: 424/184.1; 530/300

#### ABSTRACT:

An immunological response potentiation process is disclosed for synthetic or genetically engineered antigens having low immunogenicity. The antigen is embedded into biodegradable microparticles, these antigen-loaded microparticles are dispersed in a biodegradable medium which triggers when it is parenterally administered a potentiated antibody, T.sub.H-lymphocyte and T.sub.C-lymphocyte response, as compared to an aqueous antigen solution. The extent of immunological potentiation is at least comparable with that attained by IFA compositions. Linear B-T.sub.H-cell epitopes, linear T.sub.C-cell epitopes, dimers and multimers of said epitopes, as well as their mixtures, are used as low immunogenicity antigens. The microparticles are based on biodegradable biopolymers such as polyester, polyanhydride, polyorthoester. By mixing microparticles with different wettabilities, swellabilities, release and biodegradation times, the most intense and longest immunological potentiation is achieved. This process is useful for immunising human beings and animals against diseases caused by viruses, bacteria, protozoa or tumour cells.

Full	Title	Citation Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	юмс	Drawn Des
		aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa				************		***************************************	***************************************	*************	

File: PGPB

Mar 28, 2002

PGPUB-DOCUMENT-NUMBER: 20020037293

PGPUB-FILING-TYPE: new

L14: Entry 37 of 58

DOCUMENT-IDENTIFIER: US 20020037293 A1

TITLE: Chlamydia antigens and corresponding DNA fragments and uses thereof

PUBLICATION-DATE: March 28, 2002

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Murdin, Andrew D. Richmond Hill CA
Oomen, Raymond P. Aurora CA

Wang, Joe Toronto CA

US-CL-CURRENT: 424/190.1; 424/263.1, 435/252.3, 435/320.1, 435/69.3, 536/23.7

#### ABSTRACT:

The present invention provides purified and isolated polynucleotide molecules that encode Chlamydia polypeptides which can be used in methods to prevent, treat, and diagnose Chlamydia infection. In one form of the invention, the polynucleotide molecules are selected from DNA that encode polypeptides CPN100686 RY-54 (SEQ ID Nos: 1 and 14), CPN100696 RY-55 (SEQ ID Nos: 2 and 15), CPN100709 RY-57 (SEQ ID Nos: 3 and

 $http://westbrs:9000/bin/gate.exe?f=TOC\&state=45sl2g.15\&ref=14\&dbname=PGPB, USPT, U... \\ 11/23/04$ 

16), CPN100710 RY-58 (SEQ ID Nos: 4 and 17), CPN100711 RY-59 (SEQ ID Nos: 5 and 18), CPN100877 RY-61 (SEQ ID Nos: 6 and 19), CPN100325 RY-62 (SEQ ID Nos: 7 and 20), CPN100368 RY-63 (SEQ ID Nos: 8 and 21), CPN100624 RY-64 (SEQ ID Nos: 9 and 22), CPN100633 RY-65 (SEQ ID Nos: 10 and 23), CPN100985 RY-66 (SEQ ID Nos: 11 and 24), CPN100987 RY-67 (SEQ ID Nos: 12 and 25), CPN100988 RY-68 (SEQ ID Nos: 13 and 26).

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMMC Draw Desc

☐ 38. Document ID: US 6808713 B1

L14: Entry 38 of 58

File: USPT

Oct 26, 2004

US-PAT-NO: 6808713

DOCUMENT-IDENTIFIER: US 6808713 B1

TITLE: Chlamydia antigens and corresponding DNA fragments and uses thereof

DATE-ISSUED: October 26, 2004

INVENTOR-INFORMATION:

NAME : CITY STATE ZIP CODE COUNTRY

Murdin; Andrew D. Richmond Hill CA
Oomen; Raymond P. Aurora CA

Wang; Joe Toronto CA

Dunn; Pamela Woodbridge CA

# ABSTRACT:

The present invention provides a method of immunizing a host against disease caused by infection by a strain of Chlamydia, specifically C. pneumoniae. The method involves nucleic acid immunization, including DNA immunization, and employs a vector containing a nucleotide sequence which encodes an ATP/ADP translocase of a strain of Chlamydia pneumoniae. The nucleotide sequence is operably linked to a promoter to effect expression of the ATP/ADP translocase in the host. The host may be a human host. Modifications are possible within the scope of this invention.

19 Claims, 4 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 11

Full Title Citation Front Review Classification Date Reference State Claims Kimic Draw, Des.

☐ 39. Document ID: US 6746669 B1

L14: Entry 39 of 58

File: USPT

Jun 8, 2004

US-PAT-NO: 6746669

DOCUMENT-IDENTIFIER: US 6746669 B1

TITLE: Method for down-regulating IL5 activity

DATE-ISSUED: June 8, 2004

INVENTOR-INFORMATION:

NAME

CITY STATE ZIP CODE COUNTRY

Klysner; Steen Hiller.o slashed.d DK

US-CL-CURRENT: 424/85.2; 424/184.1, 424/198.1, 530/350

#### ABSTRACT:

The present invention relates to improvements in therapy and prevention of conditions characterized by an elevated level of eosinophil leukocytes, i.e. conditions such as asthma and other chronic allergic diseases. A method is provided for down-regulating interleukin 5 (IL5) by enabling the production of antibodies against IL5 thereby reducing the level of activity of eosinophils. The invention also provides for methods of producing modified IL5 useful in this method as well as for the modified IL5 as such. Also encompassed by the present invention are nucleic acid fragments encoding modified IL5 as well as vectors incorporating these nucleic acid fragments and host cells and cell lines transformed therewith. The invention also provides for a method for the identification of IL5 analogues which are useful in the method of the invention as well as for compositions comprising modified IL5 or comprising nucleic acids encoding the IL5 analogues. The preferred embodiment of the present invention entails the use of variants of IL5, where foreign T helper epitopes are introduced so as to induce production of cross-reactive antibodies capable of binding to autologous IL5.

34 Claims, 7 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 7

Full Title Citation Front Review Classification	Date Reference	Claims KIMC Draw, Desi
☐ 40. Document ID: US 6576757 B1		
L14: Entry 40 of 58	File: USPT	Jun 10, 2003

US-PAT-NO: 6576757

DOCUMENT-IDENTIFIER: US 6576757 B1

\*\* See image for Certificate of Correction \*\*

TITLE: Polynucleotides encoding flavivirus and alphavirus multivalent antigenic polypeptides

DATE-ISSUED: June 10, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Punnonen; Juha Palo Alto CA Bass; Steven H. Hillsborough CA Whalen; Robert Gerald Paris FR Howard; Russell Los Altos Hills CA Stemmer; Willem P. C. Los Gatos CA

US-CL-CURRENT: 536/23.72; 424/184.1, 424/204.1, 424/218.1, 424/228.1, 536/23.1

#### ABSTRACT:

This invention is directed to antigen library immunization, which provides methods for obtaining antigens having improved properties for therapeutic and other uses. The methods are useful for obtaining improved antigens that can induce an immune response against pathogens, cancer, and other conditions, as well as antigens that are effective in modulating allergy, inflammatory and autoimmune diseases.

54 Claims, 27 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 23

Full	Title Citation Front	Review Classification Date	Reference		Claims	FOMC	Draw. Des
	41. Document ID	: US 6569435 B1					
L14:	Entry 41 of 58		File:	IICDM		0.7	2003

US-PAT-NO: 6569435

DOCUMENT-IDENTIFIER: US 6569435 B1

TITLE: Flavivirus and alphavirus recombinant antigen libraries

DATE-ISSUED: May 27, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Punnonen; Juha	Palo Alto	CA		
Bass; Steven H.	Hillsborough	CA		
Whalen; Robert Gerald	Paris			FR
Howard; Russell	Los Altos Hills	CA		
Stemmer; Willem P. C.	Los Gatos	CA		

US-CL-CURRENT: 424/202.1; 424/204.1, 424/234.1, 424/236.1, 424/274.1, 435/320.1, 435/6, 514/44

#### ABSTRACT:

This invention is directed to antigen library immunization, which provides methods for obtaining antigens having improved properties for therapeutic and other uses. The methods are useful for obtaining improved antigens that can induce an immune response against pathogens, cancer, and other conditions, as well as antigens that are effective in modulating allergy, inflammatory and autoimmune diseases.

51 Claims, 27 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 23

Full	Title	Citation Front Review Classification Date Reference 2000 2000 2000 Claims KMC Draw, Desc
	42.	Document ID: US 6541011 B2

L14: Entry 42 of 58

File: USPT

Apr 1, 2003

US-PAT-NO: 6541011

DOCUMENT-IDENTIFIER: US 6541011 B2

TITLE: Antigen library immunization

DATE-ISSUED: April 1, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Punnonen; Juha Palo Alto CA

Bass; Steven H. Hillsborough CA

Whalen; Robert Gerald Paris FR

Howard; Russell Los Altos Hills CA Stemmer; Willem P. C. Los Gatos CA

US-CL-CURRENT: 424/204.1; 424/218.1, 530/300, 530/350

## ABSTRACT:

This invention is directed to antigen library immunization, which provides methods for obtaining antigens having improved properties for therapeutic and other uses. The methods are useful for obtaining improved antigens that can induce an immune response against pathogens, cancer, and other conditions, as well as antigens that are effective in modulating allergy, inflammatory and autoimmune diseases.

47 Claims, 28 Drawing figures Exemplary Claim Number: 1
Number of Drawing Sheets: 23

Full Title Citation Front	Review Classification	Date Referen	ce	Claims	KloofC	Draw Des

# ☐ 43. Document ID: US 6537552 B1

L14: Entry 43 of 58 File

File: USPT Mar 25, 2003

US-PAT-NO: 6537552

DOCUMENT-IDENTIFIER: US 6537552 B1

\*\* See image for <u>Certificate of Correction</u> \*\*

TITLE: Vaccine adjuvant

DATE-ISSUED: March 25, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Minion; F. Chris Ames IA
Menon; Sreekumar A. Philadelphia PA
Mahairas; Gregory G. Seattle WA

US-CL-CURRENT: 424/190.1; 424/248.1, 424/264.1, 424/278.1, 424/93.3, 435/863, 435/870

#### ABSTRACT:

The invention features fusion agents such as fusion proteins that are useful for the

 $http://westbrs:9000/bin/gate.exe?f=TOC\&state=45sl2g.15\&ref=14\&dbname=PGPB, USPT, U... \\ 11/23/04 + 11/23/04$ 

treatment of and prevention from diseases that are susceptible to the effects of cellular (Th1 type) immune responses. Also encompassed by the invention are nucleic acids encoding the fusion proteins of the invention, vectors containing the nucleic acids, and cells containing the vectors. The invention includes methods of making and using the fusion agents of the invention.

8 Claims, 10 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 7

Full Title Citation Front Review Classification Date Reference (1997) (1998) Claims KUMC Draw Desc

☐ 44. Document ID: US 6534064 B1

L14: Entry 44 of 58

File: USPT

Mar 18, 2003

US-PAT-NO: 6534064

DOCUMENT-IDENTIFIER: US 6534064 B1

TITLE: Stabilized protein particles for inducing cellular immune responses

DATE-ISSUED: March 18, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

O'Hagan; Derek Berkeley CA Singh; Manmohan Hercules CA

US-CL-CURRENT:  $\frac{424}{205.1}$ ;  $\frac{424}{199.1}$ ,  $\frac{424}{204.1}$ ,  $\frac{424}{207.1}$ ,  $\frac{424}{207.1}$ ,  $\frac{424}{208.1}$ ,  $\frac{424}{229.1}$ ,  $\frac{424}{70.14}$ ,  $\frac{424}{70.16}$ ,  $\frac{424}{9.34}$ ,  $\frac{435}{8}$ ,  $\frac{518}{726}$ 

#### ABSTRACT:

A method for producing a cellular immune response in a vertebrate subject comprising administering to the vertebrate subject a vaccine composition comprising a protein particle antigen and a pharmaceutically acceptable excipient is disclosed.

49 Claims, 2 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 2

Full Title Citation Front Review Classification Date Reference (1997) Front Review Claims KiwiC Draw. Des

☐ 45. Document ID: US 6395714 B1

L14: Entry 45 of 58

File: USPT

May 28, 2002

US-PAT-NO: 6395714

DOCUMENT-IDENTIFIER: US 6395714 B1

TITLE: Expressing gp140 fragment of primary HIV-1 isolate

DATE-ISSUED: May 28, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sia; Charles D. Y.	Thornhill			CA
Cao; Shi Xian	Etobicoke			CA
Persson; Roy	North York			CA
Rovinski; Benjamin	Thornhill			CA

US-CL-CURRENT: 514/44; 435/320.1, 435/455, 536/23.1, 536/23.7, 536/23.72

#### ABSTRACT:

A vector for eliciting an immune response to a host comprising a gene encoding the gp140 protein of the primary isolate of HIV-1, BX08, under the control of a promotor for expression of the protein in the host, specifically plasmid pCMV.gp140.BX08. Murine and human MHC class 1-restricted binding motifs contained in BX08 are identified.

7 Claims, 14 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 9

Full T	itle Citation	Front	Review	Classification	Date	Reference		Claims	KMIC	Drawn Des
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	6. Docum							***************************************		

US-PAT-NO: 6309669

DOCUMENT-IDENTIFIER: US 6309669 B1

TITLE: Therapeutic treatment and prevention of infections with a bioactive materials encapsulated within a biodegradable-biocompatible polymeric matrix

DATE-ISSUED: October 30, 2001

# INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP	CODE	COUNTRY
Setterstrom; Jean A.	Alpharetta	GA			000111111
Van Hamont; John E.	Fort Meade	MD			
Reid; Robert H.	McComas	CT			
Jacob; Elliot	Silver Spring	MD			
Jeyanthi; Ramasubbu	Columbia	MD			
Boedeker; Edgar C.	Chevy Chase	MD			
McQueen; Charles E.	Olney	MD			
Jarboe; Daniel L.	Silver Spring	MD			
Cassels; Frederick	Ellicott City	MD			
Brown; William	Denver	СО			
Thies; Curt	Ballwin	MO			
Tice; Thomas R.	Birmington	AL			
Roberts; F. Donald	Dover	MA			
Friden; Phil	Beford	MA			

US-CL-CURRENT: 424/486; 424/422, 424/423, 424/424, 424/425, 424/484

#### ABSTRACT:

Novel burst-free, sustained release biocompatible and biodegrable microcapsules which can be programmed to release their active core for variable durations ranging from 1-100 days in an aqueous physiological environment. The microcapsules are comprised of a core of polypeptide or other biologically active agent encapsulated in a matrix of poly(lactide/glycolide) copolymer, which may contain a pharmaceutically-acceptable adjuvant, as a blend of upcapped free carboxyl end group and end-capped forms ranging in ratios from 100/0 to 1/99.

25 Claims, 87 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 85

Full   Title   Citation   Front   Review   Classificat	tion Date Reference	Claims   KMMC   Drawn Desc
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☐ 47. Document ID: US 6183752	B1	
L14: Entry 47 of 58	File: USPT	Feb 6, 2001

US-PAT-NO: 6183752

DOCUMENT-IDENTIFIER: US 6183752 B1

\*\* See image for Certificate of Correction \*\*

TITLE: Restenosis/atherosclerosis diagnosis, prophylaxis and therapy

DATE-ISSUED: February 6, 2001

#### INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Epstein; Stephen E.	Rockville	MD		
Finkel; Toren	Bethesda	MD		
Speir; Edith	Annandale	VA		
Zhou; Yi Fu	Bethesda	MD		
Zhu; Jianhui	Bethesda	MD		
Erdile; Lorne	Loudonville	NY		
Pincus; Steven	East Greenbush	NY		

 $\text{US-CL-CURRENT: } \underline{424/199.1}; \ \underline{424/230.1}, \ \underline{424/277.1}, \ \underline{424/93.2}, \ \underline{435/320.1}, \ \underline{514/44}$ 

#### ABSTRACT:

Disclosed and claimed are compositions and methods for therapy and/or prevention of restenosis and/or atherosclerosis. The compositions can include an agent for decreasing viral load of cytomegalovirus, such as an immunological composition or vaccine against cytomegalovirus (CMV) containing at least one epitope of interest of CMV and/or an expression system which expresses at least one epitope of interest of CMV. Such compositions can include at least one epitope of p53. Alternatively, the compositions can include at least one epitope of p53 and/or an expression system which expresses the epitope. The methods can include administering the compositions to a patient in need of such therapy and/or prevention. Additionally, compositions and methods for diagnosing atherosclerosis and/or restenosis, or susceptibility thereto, including screening a sample from a patient for antibodies to CMV and/or CMV proteins and/or screening a sample from a patient for specific viral proteins that predict whether the virus has been reactivated and/or antibodies thereto and/or detecting whether CMV nucleic acid, e.g., mRNA is present in peripheral blood

monocytes (PBMCs) and/or detecting a cellular-mediated immune response to CMV peptides or proteins is present and/or HLA phenotyping and/or HLA genotyping. Embodiements can include a skin test.

22 Claims, 115 Drawing figures Exemplary Claim Number: 1
Number of Drawing Sheets: 102

Full Title Citation Front Review Classification Date Reference

☐ 48. Document ID: US 6156567 A

L14: Entry 48 of 58

File: USPT

Dec 5, 2000

US-PAT-NO: 6156567

DOCUMENT-IDENTIFIER: US 6156567 A

\*\* See image for <u>Certificate of Correction</u> \*\*

TITLE: Truncated transcriptionally active cytomegalovirus promoters

DATE-ISSUED: December 5, 2000

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Fischer; Laurent

Albany

NY

US-CL-CURRENT: 435/325; 424/199.1, 424/233.1, 435/235.1, 435/320.1, 514/44, 536/23.1, 536/24.1

# ABSTRACT:

Recombinant adenoviruses, methods of making them, uses for them, including in immunological, immunogenic, vaccine or therapeutic compositions, or, as a vector for cloning, replicating or expressing DNA and methods of using the compositions and vector, expression products from them, and uses for the expression products are provided. More particularly, recombinant canine adenoviruses (CAV) and methods of making them, uses for them, expression products from them, and uses for the expression products, including recombinant CAV2 viruses are provided. Additionally, truncated promoters, expression cassettes containing the promoters, and recombinant viruses and plasmids containing the promoters or expression cassettes are provided.

15 Claims, 98 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 97

☐ 49. Document ID: US 6136320 A

L14: Entry 49 of 58

File: USPT

Oct 24, 2000

US-PAT-NO: 6136320

DOCUMENT-IDENTIFIER: US 6136320 A

TITLE: Vaccines expressed in plants

DATE-ISSUED: October 24, 2000

INVENTOR-INFORMATION:

NAME

CITY

STATE ZIP CODE

COUNTRY

Arntzen; Charles Joel

The Woodlands

ΤX

Lam; Dominic Man-Kit

The Woodlands

TX

US-CL-CURRENT: 424/204.1; 424/223.1, 424/225.1, 424/227.1, 424/725

## ABSTRACT:

The anti-viral vaccine of the present invention is produced in transgenic plants and then administered through standard vaccine introduction method or through the consumption of the edible portion of those plants. A DNA sequence encoding for the expression of a surface antigen of a viral pathogen is isolated and ligated to a promoter which can regulate the production of the surface antigen in a transgenic plant. This gene is then transferred to plant cells using a procedure that results in its integration into the plant genome, such as through the use of an Agrobacterium tumenfaciens plasmid vector system. Preferably, the foreign gene is expressed in an portion of the plant that is edible by humans or animals. In a preferred procedure, the vaccine is administered through the consumption of the edible plant as food, preferably in the form of a fruit or vegetable juice which can be taken orally.

10 Claims, 14 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 11

Full	Title	Ortation	Front	Review Classification	Date	Reference	Claims		Drawa De
							214111121	150010	CIAW DE

☐ 50. Document ID: US 6130066 A

L14: Entry 50 of 58

File: USPT

Oct 10, 2000

COUNTRY

US-PAT-NO: 6130066

DOCUMENT-IDENTIFIER: US 6130066 A

TITLE: Vectors having enhanced expression and methods of making and uses thereof

DATE-ISSUED: October 10, 2000

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE Tartaglia; James Schenectady NY Cox; William I. Sand Lake NY Gettig; Russell Robert Averill Park NY Martinez; Hector Menands NY Paoletti; Enzo Delmar NY Pincus; Steven E. East Greenbush

US-CL-CURRENT: 435/69.1; 435/320.1, 435/91.41, 536/23.72

#### ABSTRACT:

Disclosed and claimed are vectors having enhanced expression and methods for making and using them. Enhancement of expression is from substantially co-temporal expression of at least one first nucleic acid molecule and at least one second nucleic acid molecule. The second nucleic acid molecule encodes a transcription factor or a translation factor or a transcription factor and a translation factor. The contemporaneous expression can be from operably linking the first and second nucleic molecules to a single promoter, or from operably linking the first nucleic acid molecule to a first promoter and the second nucleic molecule to a second promoter wherein the first and second promoters function substantially contemporaneously. Thus, the first and second nucleic acid molecules can be at the same locus in the vector, or at different loci. The second nucleic acid molecule can encode: one transcription factor or more than one transcription factor; or one translation factor or more than one translation factor; or at least one transcription factor and at least one translation factor. The transcription factor can be from vaccinia H4L, D6, A7, G8R, A1L, A2L, H5R, or combinations thereof. The translation factor can be from a K3L open reading frame, an E3L open reading frame, a VAI RNA, an EBER RNA, a sigma 3 open reading frame, a TRBP open reading frame, or combinations thereof. The vector can be a poxvirus such as an attenuated poxvirus, e.g., NYVAC, or ALVAC.

24 Claims, 22 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 30

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	MONO	Draw Desi
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	51.	Docum	ent ID	): US 6	090393 A				······································	***************************************	······································

US-PAT-NO: 6090393

DOCUMENT-IDENTIFIER: US 6090393 A

TITLE: Recombinant canine adenoviruses, method for making and uses thereof

DATE-ISSUED: July 18, 2000

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Fischer; Laurent Albany NY

US-CL-CURRENT: 424/233.1; 424/204.1, 424/205.1, 435/235.1

#### ABSTRACT:

Disclosed and claimed are recombinant adenoviruses, methods of making them, uses for them (including in immunological, immunogenic, vaccine or therapeutic compositions, or, as a vector for cloning, replicating or expressing DNA and methods of using the compositions and vector), expression products from them, and uses for the expression products. More particularly, disclosed and claimed are recombinant canine adenoviruses (CAV) and methods of making them, uses for them, expression products from them, and uses for the expression products, including recombinant CAV2 viruses. Additionally, disclosed and claimed are truncated promoters, expression cassettes containing the promoters, and recombinant viruses and plasmids containing the promoters or expression cassettes.

23 Claims, 50 Drawing figures Exemplary Claim Number: 1

☐ 52. Document ID: US 6034298 A

L14: Entry 52 of 58

File: USPT

Mar 7, 2000

US-PAT-NO: 6034298

DOCUMENT-IDENTIFIER: US 6034298 A

TITLE: Vaccines expressed in plants

DATE-ISSUED: March 7, 2000

INVENTOR-INFORMATION:

NAME CITY

STATE ZIP CODE

COUNTRY

Lam; Dominic Man-Kit

The Woodlands

ТX

Arntzen; Charles Joel

The Woodlands

TХ

Mason; Hugh Stanley

The Woodlands

TX

US-CL-CURRENT: 800/298; 424/186.1, 424/223.1, 424/725, 435/320.1, 800/288, 800/317.2

#### ABSTRACT:

The anti-viral vaccine of the present invention is produced in transgenic plants and then administered through standard vaccine introduction method or through the consumption of the edible portion of those plants. A DNA sequence encoding for the expression of a surface antigen of a viral pathogen is isolated and ligated to a promoter which can regulate the production of the surface antigen in a transgenic plant. This gene is then transferred to plant cells using a procedure that results in its integration into the plant genome, such as through the use of an Agrobacterium tumefaciens plasmid vector system. Preferably, the foreign gene is expressed in a portion of the plant that is edible by humans or animals. In a preferred procedure, the vaccine is administered through the consumption of the edible plant as food, preferably in the form of a fruit or vegetable juice which can be taken orally.

12 Claims, 11 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 11

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	THE -	Citation	rivin	Menleys	Classification	Date	Reference	Claims	KOMIC	Draw, Desi
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# □ 53. Document ID: US 6004777 A

L14: Entry 53 of 58

File: USPT

Dec 21, 1999

US-PAT-NO: 6004777

DOCUMENT-IDENTIFIER: US 6004777 A

TITLE: Vectors having enhanced expression, and methods of making and uses thereof

DATE-ISSUED: December 21, 1999

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Tartaglia; James Schenectady NY Jacobs; Bertram L. Phoenix AZGoebel; Scott J. Ballston Spa NY Cox; William I. Sand Lake NY Gettig; Russell Robert Averill Park NY Pincus; Steven E. East Greenbush NY Paoletti; Enzo Delmar NY

US-CL-CURRENT: 435/69.1; 435/320.1, 435/91.41, 536/23.1, 536/23.72

# ABSTRACT:

Disclosed and claimed are vectors having enhanced expression and methods for making and using them. Enhancement of expression is from substantially co-temporal expression of at least one first nucleic acid molecule and at least one second nucleic acid molecule. The second nucleic acid molecule encodes a translation factor. The contemporaneous expression can be from operably linking the first and second nucleic molecules to a single promoter, or from operably linking the first nucleic acid molecule to a first promoter and the second nucleic molecule to a second promoter wherein the first and second promoters function substantially contemporaneously. Thus, the first and second nucleic acid molecules can be at the same locus in the vector or at different loci. The second nucleic acid molecule can encode encode one translation factor or more than one translation factor. The translation factor can be a K3L open reading frame, an E3L open reading frame, a VAI RNA, an EBER RNA, a sigma 3 open reading frame, a TRBP open reading frame, or combinations thereof. The vector can be a poxvirus such as an attenuated poxvirus; for instance, a NYVAC vaccinia virus or an ALVAC canarypox virus.

15 Claims, 24 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 24

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	KWMC	Draw, Desi
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	34.	Docume	ent ID	): US 5	990091 A						
L14:	Entr	y 54 of	58				File:	USPT	Nov	23	1999

Nov 23, 1999

US-PAT-NO: 5990091

DOCUMENT-IDENTIFIER: US 5990091 A

TITLE: Vectors having enhanced expression, and methods of making and uses thereof

DATE-ISSUED: November 23, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Tartaglia; James	Schenectady	NY		
Cox; William I.	Sand Lake	NY		
Gettig; Russell Robert	Averill Park	NY		
Martinez; Hector	Menands	NY		
Paoletti; Enzo	Delmar	NY		

US-CL-CURRENT: 514/44; 424/93.2, 435/320.1, 435/69.1, 435/91.4, 435/91.41

#### ABSTRACT:

Disclosed and claimed are vectors having enhanced expression and methods for making and using them. Enhancement of expression is from substantially co-temporal expression of at least one first nucleic acid molecule and at least one second nucleic acid molecule. The second nucleic acid molecule encodes a transcription factor or a translation factor or a transcription factor and a translation factor. The contemporaneous expression can be from operably linking the first and second nucleic molecules to a single promoter, or from operably linking the first nucleic acid molecule to a first promoter and the second nucleic molecule to a second promoter wherein the first and second promoters function substantially contemporaneously. Thus, the first and second nucleic acid molecules can be at the same locus in the vector, or at different loci. The second nucleic acid molecule can encode: one transcription factor or more than one transcription factor; or one translation factor or more than one translation factor; or at least one transcription factor and at least one translation factor. The transcription factor can be from vaccinia H4L, D6, A7, G8R, A1L, A2L, H5R, or combinations thereof. The translation factor can be from a K3L open reading frame, an E3L open reading frame, a VAI RNA, an EBER RNA, a sigma 3 open reading frame, a TRBP open reading frame, or combinations thereof. The vector can be a poxvirus such as an attenuated poxvirus, e.g., NYVAC, or ALVAC.

51 Claims, 30 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 30

F UII	tle Citation	Front	Review	Classification	Date	Reference		Chaire -	Draw, Des
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☐ 55. Document ID: US 5914123 A

L14: Entry 55 of 58

File: USPT

Jun 22, 1999

US-PAT-NO: 5914123

DOCUMENT-IDENTIFIER: US 5914123 A

TITLE: Vaccines expressed in plants

DATE-ISSUED: June 22, 1999

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Arntzen; Charles Joel The Woodlands TX Lam; Dominic Man-Kit The Woodlands TX

US-CL-CURRENT: 424/439; 424/223.1, 424/225.1, 424/442, 424/93.1, 426/615, 426/637, 800/288, 800/317.2, 800/317.4

#### ABSTRACT:

The anti-viral vaccine of the present invention is produced in transgenic plants and then administered through standard vaccine introduction method or through the consumption of the edible portion of those plants. A DNA sequence encoding for the expression of a surface antigen of a viral pathogen is isolated and ligated to a

http://westbrs:9000/bin/gate.exe?f=TOC&state=45sl2g.15&ref=14&dbname=PGPB, USPT, U... 11/23/04/2009. The property of the pro

promoter which can regulate the production of the surface antigen in a transgenic plant. This gene is then transferred to plant cells using a procedure that results in its integration into the plant genome, such as through the use of an Agrobacterium tumefaciens plasmid vector system. Preferably, the foreign gene is expressed in an portion of the plant that is edible by humans or animals. In a preferred procedure, the vaccine is administered through the consumption of the edible plant as food, preferably in the form of a fruit or vegetable juice.

7 Claims, 11 Drawing figures Exemplary Claim Number: 1,4 Number of Drawing Sheets: 11

Full Title Citation Front Review Classification Date Reference Cla

US-PAT-NO: 5612487

DOCUMENT-IDENTIFIER: US 5612487 A

TITLE: Anti-viral vaccines expressed in plants

DATE-ISSUED: March 18, 1997

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Lam; Dominic Man-Kit The Woodlands TX Arntzen; Charles J. The Woodlands TX

US-CL-CURRENT: 800/288; 435/469, 435/470, 435/69.3, 435/70.1, 800/292, 800/317.3

## ABSTRACT:

The anti-viral vaccine of the present invention is produced in transgenic plants and then administered through standard vaccine introduction method or through the consumption of the edible portion of those plants. A DNA sequence encoding for the expression of a surface antigen of a viral pathogen is isolated and ligated to a promoter which can regulate the production of the surface antigen in a transgenic plant. This gene is then transferred to plant cells using a procedure that results in its integration into the plant genome, such as through the use of an Agrobacterium tumenfaciens plasmid vector system. Preferably, the foreign gene is expressed in an portion of the plant that is edible by humans or animals. In a preferred procedure, the vaccine is administered through the consumption of the edible plant as food, preferably in the form of a fruit or vegetable juice which can be taken orally.

14 Claims, 11 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 8

Full	Title	Ottation	Front	Review	Classification	Date	Reference		Claims	Draw, Des

☐ 57. Document ID: US 5484719 A

L14: Entry 57 of 58

File: USPT

Jan 16, 1996

US-PAT-NO: 5484719

DOCUMENT-IDENTIFIER: US 5484719 A

TITLE: Vaccines produced and administered through edible plants

DATE-ISSUED: January 16, 1996

INVENTOR-INFORMATION:

NAME

CITY

STATE ZIP CODE

COUNTRY

May 23, 1995

Lam; Dominic M.

The Woodlands

TX

Arntzen; Charles J.

College Station

TX

US-CL-CURRENT: 800/292; 435/320.1, 435/69.3, 800/293

#### ABSTRACT:

The oral vaccine of the present invention is produced in edible transgenic plants and then administered through the consumption of the edible portion of those plants. A DNA sequence encoding for the expression of a surface antigen of a pathogen is isolated and ligated to a promoter which can regulate the production of the surface antigen in a transgenic plant. This gene is then transferred to plant cells using a procedure that results in its integration into the plant genome, such as through the use of an Agrobacterium tumenfaciens plasmid vector system. Preferably, the foreign gene is expressed in an portion of the plant that is edible by humans or animals. The vaccine is administered through the consumption of the edible plant as food, preferably in the form of a fruit or vegetable juice which can be taken orally.

14 Claims, 2 Drawing figures Exemplary Claim Number: 5 Number of Drawing Sheets: 2

Full Title Citation Front Review Class	affication Date Reference	Claims KOMC Draw, Des
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☐ 58. Document ID: US 54179	986 A	
L14: Entry 58 of 58	File: USPT	May 23 1995

File: USPT

US-PAT-NO: 5417986

DOCUMENT-IDENTIFIER: US 5417986 A

TITLE: Vaccines against diseases caused by enteropathogenic organisms using antigens encapsulated within biodegradable-biocompatible microspheres

DATE-ISSUED: May 23, 1995

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Reid; Robert H. Kensington Boedeker; Edgar C. Chevy Chase MD van Hamont; John E. Shape BE Setterstrom; Jean A. Takoma Park MD

US-CL-CURRENT:  $\underline{424/499}$ ;  $\underline{424/422}$ ,  $\underline{424/426}$ ,  $\underline{424/433}$ ,  $\underline{424/444}$ ,  $\underline{424/455}$ ,  $\underline{424/470}$ ,  $\underline{424/488}$ ,  $\underline{424/488}$ ,  $\underline{424/489}$ ,  $\underline{424/491}$ 

# ABSTRACT:

This invention is directed to oral parenteral and intestinal vaccines and eir use against diseases caused by enteropathogenic organisms using antigens encapsulated within biodegradable-biocompatible microspheres.

14 Claims, 71 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 70

Full Title Citation Front Review Classification Date F	Reference Claims Kiill Draw, Des
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Terms	Documents
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